Section 1 General analysis

Chapter 1 Introduction

A BRIEF DESCRIPTION OF THE UK HOSIERY AND KNITWEAR INDUSTRY

The hosiery and knitwear industry consists of over 1000 firms employing approximately 130,000 people, with a total output of almost £400 million in 1968.

Most firms show a degree of vertical integration in that they are engaged in the knitting, making-up, dyeing and finishing of garments. The industry produces three main types of product —stockings and socks, knitted fabric, and garments made either from fabric knitted to a particular shape (fully fashioned) or from pieces cut from rolls of knitted fabric. Firms which simply buy knitted fabric and make it up into garments are regarded as part of the clothing industry. In the hosiery and knitwear industry there is a clear distinction between warp knitting and weft knitting. (Although minimum list heading 417 covers both types of knitting, the warp knitters neither regard themselves nor are regarded as part of the hosiery and knitwear industry. They are excluded from the EDC coverage and where possible from this survey).

Table 1.1 gives some indication of the size distribution of firms within the industry.

Table 1.1 Firms and establishments in the UK hosiery and knitwear industry 1968—Classified according to numbers of employees

Number of Employees	*Firms with membership of National Hosiery Manufacturers' Federation*	*Establishments recognised by the Training Board**
1– 20	60	200
21– 50	102	273
51– 100	115	216
101– 200	80	190
201– 500	60	133
501–1000	29	38
1001–2000	14	10
Over 2000	4	1
	464	1061

*Knitting, Lace and Net Industries Training Board
Source: NEDO

Traditionally the industry has been highly concentrated in the East Midlands, particularly in the towns of Leicester, Nottingham and Hinckley, and 55 per cent of employment is still in this area. There is also a smaller but intense concentration in Hawick and the surrounding areas along the Scottish border, which accounts for approximately 15 per cent of the numbers employed in the industry.

The above description was provided by NEDO, to whom we are grateful. More comments on the structure of the industry appear in Chapter 5.

SUMMARY OF PROSPECTS, THREATS AND OPPORTUNITIES

The results of our analysis of the future environment for the hosiery and knitwear industry, and its constituent sectors are summarised below and in Charts 1 and 2. We have singled out those factors which will have a major impact on the volume of total demand, on the types of garments which will be bought and on the nature and conditions of the market in which consumers will make their purchases, and in which hosiery and knitwear manufacturers will have to make and sell their garments and fabrics.

Factors of major importance which will influence the whole industry

Because of the great differences between sectors, there is only a small number of common factors of major importance which will affect all sectors of the industry:

Import threat The import threat is already serious in some garment sectors, and could become critical. See page 25.

Future prices We think it essential to maintain price stability compared with other consumer goods. Relative price inflation would reduce demand for British made goods and increase imports. We think price stability will be maintained, and that there will be some decreases in prices relative to other goods. See page 42.

Labour availability and wages It is essential for the labour supply situation at the making-up and finishing end of the industry to improve, if British manufacturers are to meet the demand which we forecast for their products. Existing labour must be fully utilised and a high rate of increase of productivity maintained; competitive pay will be essential. See page 42.

The growing dominance of giant fibre, textile and retail groups The influence of the fibre and textile industries is likely to increase, and the multiple retail groups will consolidate their importance. The hosiery and knitwear industry itself cannot exercise much influence over either side, but this need not be to its disadvantage. See pages 34, 37.

Future total demand for hosiery and knitwear Natural growth, coupled with the increasing proportion of knitted fabric being used for apparel, will cause UK hosiery and knitwear manufacturers' total sales of hosiery and knitwear to increase by some 7 per cent per annum up to 1973 and by 4 per cent per annum between 1973 and 1978. By 'natural growth' we mean population increase and a general rise in incomes. (Of course, not all sales of knitted garments are made by manufacturers within the hosiery and knitwear industry, since many garments are made up outside the industry. Therefore, we have based these growth calculations on forecast demand for garments in the case of knitwear, hose and underwear and some categories of outerwear; but on fabric—with no added value for making-up—in the case of other outerwear. Moreover, as will become apparent in Chapters 8 to 12, we cannot be certain how much of the growth will be accounted for by warp knitted fabric.) See page 11.

Factors of major importance which will influence individual sectors of the industry

We now summarise the additional important factors which we believe will affect the different sectors of the industry. (Each of these sectors is treated in detail in Chapters 6 to 12.)

Knitwear

We estimate that UK demand for knitwear will grow by 45 per cent over the decade and that the UK's home and export sales together will increase by 43 per cent. The most important factors in the knitwear sector are likely to be:

Import threat The import threat is particularly serious in this sector. We forecast that the UK's imports of men's and boys' knitwear will increase by about 170 per cent between 1968 and 1978, and women's and girls' knitwear by about 150 per cent.

Export opportunities British garments have a very high reputation abroad, and there are great opportunities for manufacturers of knitwear, particularly of high quality men's garments.

Young people Young people are major purchasers and fashion leaders in knitwear.

The growth of multiple groups—specification buying This will affect manufacturers of non-luxury knitwear considerably because of the more exacting requirements of price, quality and service.

Technological developments Technological developments in the industry will increase productivity and will also allow for greater pattern variety at reduced cost.

Hose

The UK demand for women's tights and stockings is expected almost to double in the next five years. This growth stems from the rapid substitution of tights for stockings, which will largely have been completed by 1970. During the next five years, from 1973 to 1978, the growth is expected to have moderated to 1 per cent per annum. We estimate that the market for other hose will grow slowly by 1 per cent per annum over the next decade. The most important factors in the hose sector are likely to be:

Import threat We forecast that imports of tights and stockings will increase by 100 per cent between 1968 and 1978.

Trading-up The substitution of tights for stockings appears to be the first stage in satisfying an emerging demand for hose-cum-underclothes which also serve as support garments.

Sizing This is a real problem for many consumers; it will be aggravated by the change from stockings to tights.

Young people As major purchasers of stockings and tights and as fashion leaders, young people will influence the speed at which the trading-up process develops.

Specification buying This will increasingly affect all the essential aspects of manufacturing, including quality control and delivery schedules.

Central buying Further concentration of buying will take place through the growth of central buying in department stores, supermarkets and smaller multiple chains. Manufacturers will become increasingly responsible for the distribution function.

Technological Developments in automatic toe-closing, finishing and packaging will continue to improve productivity in this labour intensive sector of the industry.

Women's and girls' knitted outerwear

We estimate that UK demand for women's and girls' knitted outerwear will double over the decade, largely due to the swing to knitted fabrics. This is more than twice the rate of growth of the corresponding total outerwear market. We estimate that between 10 per cent and 15 per cent by value of knitted outerwear is made up within the hosiery and knitwear industry, and therefore the industry's dominant interest is in knitted fabric. The most important factors are likely to be:

Export opportunity We forecast that the UK's exports of garments should increase by 500 per cent between 1968 and 1978. This is much more significant than the import threat.

Swing to knitted fabrics The swing to knitted fabrics will counteract the underlying rigidity of consumer expenditure in the sense that manufacturers of knitted fabrics and knitted garments will be meeting a UK demand growing twice as fast as the corresponding total outerwear market. The demand for easy care, together with the relative price stability produced by technological innovation, will reinforce this swing.

Good quality and design UK manufacturers excel in both design of fabric and technical know-how. This leads to massive export potential so far barely broached.

Men's and boys' knitted outerwear

The market for tailored outerwear will grow modestly up to 1973 and then, with the advent of cheaper fabrics, will grow rapidly in the following five year period to £94 million in 1978 at manufacturers sales prices. We estimate that UK demand for men's and boys' other knitted outerwear in terms of fabric input will grow from its estimated value in 1968 of £5 million to £7 million in 1978 (manufacturers' sales prices). The most important factors are likely to be:

Penetration of knitted fabrics There will be significant penetration of knitted fabric into what has been a traditional preserve of woven fabrics. This will be assisted by:

the increased influence of the man-made fibre producer, which will enable garment manufacturers to have access to capital, management, and marketing skills;

the demand for more casual garments for both work and leisure

the growing requirement for easy-care finishes

the growing demand for lighter weight fabrics

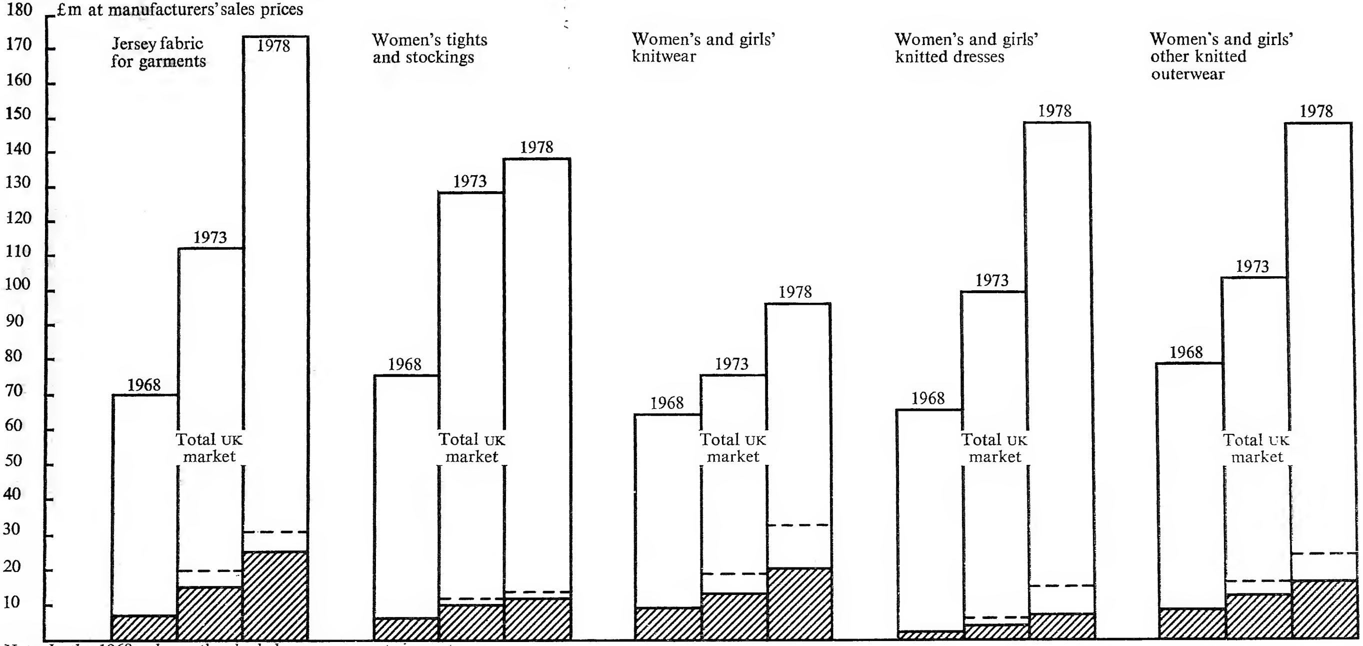
Technological progress The extent of the future use of knitted fabrics in men's and boys' outerwear depends on:

the achievement of good fabric designs

the solution of the problem of the cover factor of knitted fabrics

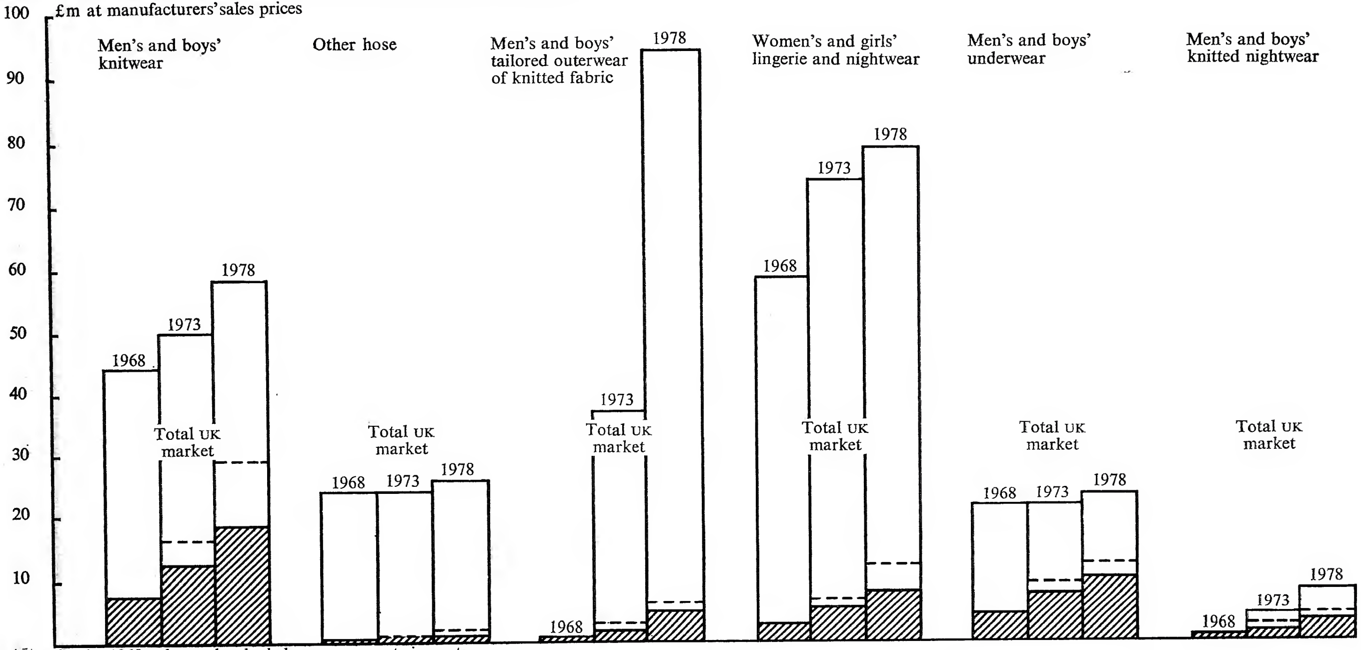
the development of non-sewing methods of construction

Chart 1 **Summary of forecast of total UK home market 1968-1978**



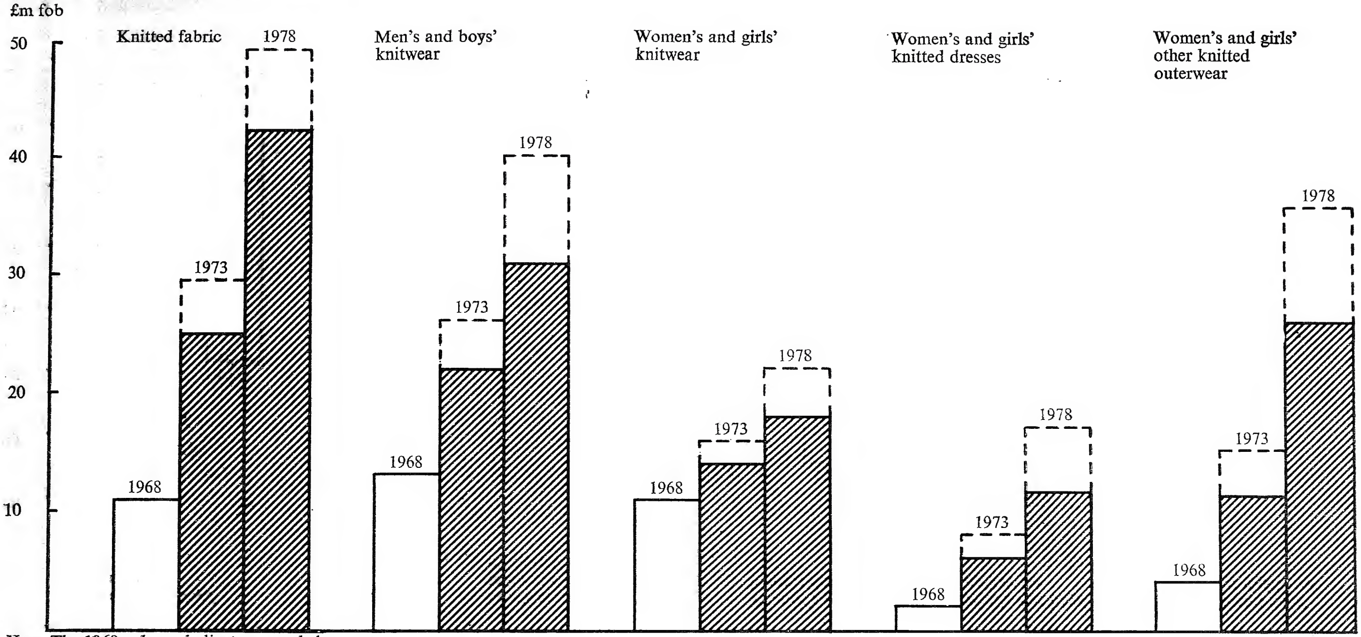
Note: In the 1968 column the shaded area represents imports.
In the columns for 1973 and 1978 the shaded areas represent the most likely forecast of imports and the dotted line the upper forecast.

Chart 1 Summary of forecast of total UK home market 1968-1978 (continued)



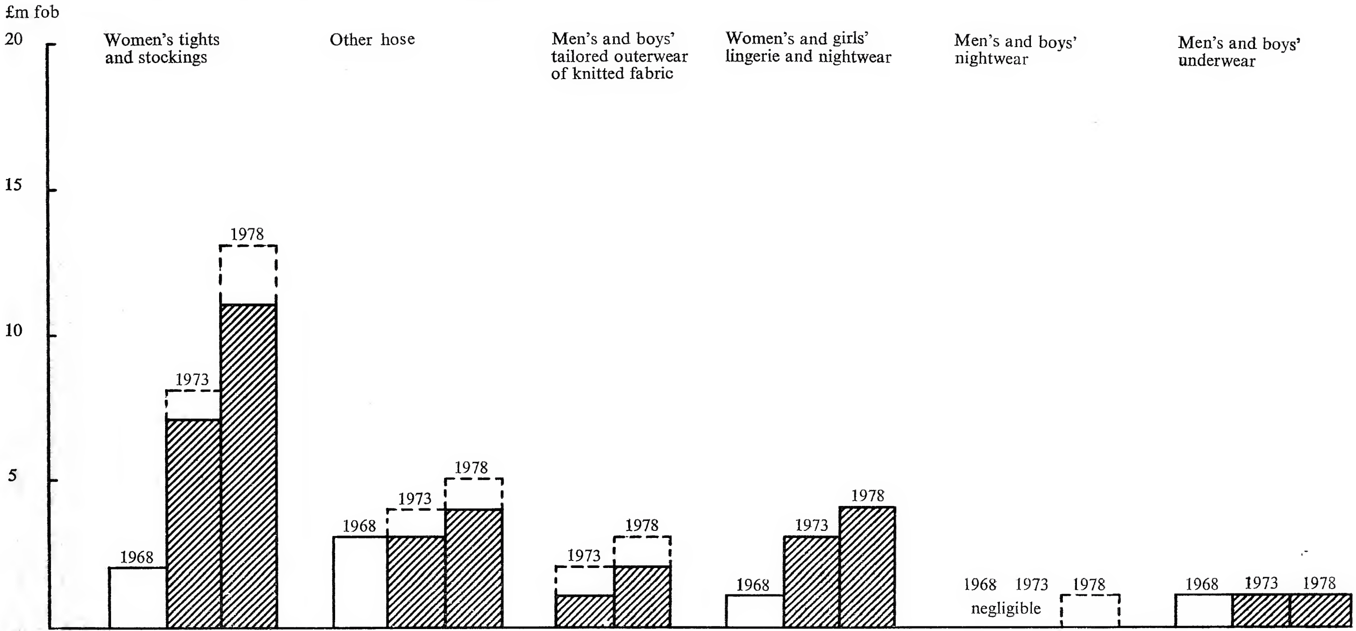
Note: In the 1968 column the shaded area represents imports.
In the columns for 1973 and 1978 the shaded areas represent the most likely forecast of imports and the dotted line the upper forecast.

Chart 2 Summary of forecasts of UK exports, 1968-1978



Note: The 1968 column indicates recorded exports;
The shaded areas in the 1973 and 1978 columns indicate the most likely forecast of exports; the dotted line represents the upper forecast.

Chart 2 Summary of forecasts of UK exports, 1968-1978 (continued)



Note: The 1968 column indicates recorded exports;
The shaded areas in the 1973 and 1978 columns indicate the most likely forecast of exports; the dotted line represents the upper forecast.

Women's and girls' knitted innerwear

We estimate that UK market demand for lingerie and nightwear will grow by 4 per cent per annum up to 1973 followed by a slower growth of 2 per cent per annum for the five year period up to 1978, as a result of the approaching saturation of the total market by knitted garments.

Imports of lingerie and nightwear are expected to grow faster than exports, with a consequent worsening of the trade balance from −£1 million in 1968 to −£4 million in 1978.

The most important factors in this sector are likely to be:

Increased use of knitted fabrics This will counteract the underlying rigidity of consumer expenditure, in the sense that manufacturers of knitted fabrics and garments will be meeting a UK demand growing almost twice as fast as the corresponding total women's and girls' innerwear market. The relative price stability of knitted fabric, as a result of productivity increases, will reinforce this trend.

Competition from imports This will increase over the next decade, increasing their share of the UK market from 3 per cent to 10 per cent.

Men's and boys' knitted innerwear

UK manufacturers' home and export sales of men's and boys' knitted underwear are expected to decline by about 32 per cent, due to the rising import threat; we expect imports to triple in value by 1978 and to increase their share of the home market from 14 per cent in 1968 to 45 per cent in 1978. The most important factors in this sector are likely to be:

The use of knitted fabrics in nightwear There are opportunities for knitted fabrics to take a large share of the nightwear market, of which at the moment they have a negligible share.

Imports Competition from imports is already fierce, and shows every indication of increasing to critical levels in this price-sensitive sector of the market.

Fabric

We estimate that UK demand for knitted fabric for garments will almost double over the decade, and that an improving trade balance will increase the total market of UK manufacturers.

With the time available to us to carry out this study, it did not prove possible to examine in depth the knitted fabric market for non-apparel uses. However, we feel that the market prospects for knitted fabric for upholstery, household and industrial uses, especially fabric for use in motor vehicles, are enormous and merit special study.

Chapter 2 The international market

THE NATURE OF THE DEMAND FOR CLOTHING

Expenditure on clothing tends to grow slightly more slowly than consumer expenditure as a whole, and thus to form a very gradually declining percentage of total consumer expenditure. This is shown by our analysis of past trends of expenditure in the UK, and has been true for a long period of time in a large number of developed economies.

Our economic analysis suggested that, other things being equal, this tendency would be likely to continue in the UK during the next ten years. Our other research, particularly the research into consumer attitudes, confirmed the tendency of consumers' expenditure on clothing in the long run to grow almost, but not quite, as fast as their total expenditure.

In the short term, of course, clothing expenditure fluctuates considerably. There are many reasons for this, but among the most important are: the relative ease with which clothing expenditure can be deferred; fundamental fashion changes; sudden surges of cheap imports; and the chain reactions caused by retail stocking and de-stocking. These short term cycles, typically lasting some three years from beginning to end, occur in other developed countries as well as the UK.

It is important, therefore, to remember that forecasts of clothing expenditure for as far ahead as 1973 and 1978 must be liable to some variation caused by short term fluctuations. It is not possible to predict what point the cycle will have reached in those particular years.

From time to time, there also occur special circumstances which cause relatively short term deviations from the long term trend. Such circumstances, as it happens, exist in the UK at the present time: the switch from stockings to tights is producing a higher rate of expenditure than in the past; cheap imports of men's underwear and shirts have kept expenditure down in the past few years, and imports of these garments are becoming more expensive as the lower quality ranges become saturated; purchasing habits are being increasingly influenced by the younger age groups.

Because of these special circumstances we anticipate that consumer expenditure on clothing in the UK will, in fact, grow slightly faster than total consumer expenditure during the five year period 1968 to 1973. In the ensuing five years we expect it to return to its normal pattern of growth.

Although our detailed analysis, which is described in full in Appendix 2, had to be confined to the UK, we hope that it will be of assistance in understanding the trends to be expected in developed countries in general.

HOSIERY AND KNITWEAR MARKETS

This section looks at the world's major markets for hosiery and knitwear. It examines the relative size in recent years of their total consumption, their total imports and their imports from the UK. In other words, it attempts to answer the questions: how much have the inhabitants of these countries spent on hosiery and knitwear, how much of this has been imported, and how much of it has come from the UK? The UK has been studied in greater depth than other countries; the second part of this section discusses the UK alone, and on pp 23 to 27 we summarise our forecasts of UK imports and exports. In addition, Chapters 6–12 contain an analysis of the UK's trade in each garment group and in knitted fabrics. (The present chapter is concerned principally with garments, since international trade in knitted fabrics is less well documented.)

Major world markets

Tables 2.1 to 2.4 have been compiled from the best available sources of information, but we must warn that these sources are by no means wholly reliable, and often disagree with each other to a significant degree. Nor do officially published statistics take any account of postal exports—at least in the case of the UK; we cannot be sure what the position is with regard to other countries. This problem is discussed in Appendix 3; see especially pages 147 and 149.

In Tables 2.1 and 2.2, the figures of total consumption for the European countries have been collated from returns to the Secrétariat International des Industries de la Maille made by the National Manufacturers' Federation or other appropriate semi-official body in each of the countries listed. Though AIC has no adequate means of confirming these data in the time available, we consider that they provide a reasonable estimate of the apparent European market.

Table 2.1 Per capita consumption and imports of knitted garments—Western Europe, North America and Japan, 1967

Country	*Total consumption* $m	*Consumption growth index* 1964=100	*Consumption per capita* $	*Total imports* $m	*Total imports growth index* 1964=100	*Total imports per capita* $	*Imports from* UK $m	*Imports from* UK *growth index* 1964=100	*Imports from* UK *per capita* $
Belgium/Luxembourg	152	117	15·0	51	153	5·0	1·087	100	0·1
France	856	108	17·2	72	151	1·4	4·023	144	0·1
West Germany	1,195	107	20·8	187	140	3·2	3·645	93	0·1
Italy	494	101	9·4	15	111	0·3	4·121	83	0·1
Netherlands	236	118	18·7	122	143	9·7	2·111	153	0·2
EEC TOTAL	2,933	118	16·0	447	143	2·4	14·967	106	0·1
Austria	119	116	16·2	19	199	2·6	2·372	323	0·3
Denmark	56	92	11·6	24	131	5·1	2·876	199	0·6
Norway	68	128	18·0	32	135	8·6	2·301	154	0·6
Portugal	9*	na	1·0	2	425	0·2	0·669	491	0·1
Sweden	153	118	19·4	67	139	8·5	5·873	147	0·7
Switzerland	165	133	27·5	58	133	9·6	7·778	168	1·3
EFTA TOTAL —excluding UK	570*	120*	14·5	203	141	5·2	21·869	176	0·6
UK	811	107	14·7	93	115	1·7			
Eire	44	na	15·4	4	130	1·5	3·705	140	1·3
Spain	402	na	12·5	7	240	0·2	1·892	149	0·1
Canada	na	na	na	36	153	1·7	6·353	102	0·3
USA	na	na	na	271	163	1·4	14·358	110	0·1
Japan	na	na	na	8	193	0·1	0·401	114	

Sources:
Consumption: Secrétariat International des Industries de la Maille.
Imports: OECD Trade Statistics (SITC 841.4). (See Appendix 3, page 149).

Notes:
Portuguese total consumption figure for 1967 not available. We have therefore taken the 1965 figure + 30 per cent.
Total consumption figures are based on manufacturers' sales prices and are rounded to nearest $1 million.
Per capita figures are rounded to nearest $0.1.
Imports are in cif values, except USA and Canada which are fob. Total import figures are rounded to nearest $1 million.
na=not available.
*=estimate.

Table 2.2 Total consumption, total imports and UK's share of imports of knitted garments—Western Europe, North America and Japan, 1965, 1966 and 1967

Country	*Total consumption* $m			*Total imports* $m			*Imports from* UK $m			*Imports as % of total consumption*			*Imports from* UK *as % of total consumption*			*Imports from* UK *as % of all imports*		
	1965	1966	1967	1965	1966	1967	1965	1966	1967	1965	1966	1967	1965	1966	1967	1965	1966	1967
Belgium/ Luxembourg	144	152	152	38	47	51	1·16	1·26	1·09	26·4	30·8	33·5	0·8	0·8	0·7	3·1	2·7	2·1
France	762	879	856	45	64	72	2·42	3·85	4·02	6·0	7·3	8·4	0·3	0·4	0·5	5·3	6·1	5·6
West Germany	1,222	1,298	1,195	187	232	187	4·71	5·36	3·65	15·2	17·8	15·7	0·4	0·4	0·4	2·5	2·3	1·9
Italy	502	481	494	12	15	15	4·11	4·57	4·12	2·4	3·2	3·0	0·8	0·9	0·8	34·3	30·0	28·0
Netherlands	208	224	236	95	123	122	1·70	1·85	2·11	45·6	56·0	51·6	0·8	0·8	0·9	1·8	1·5	1·7
EEC TOTAL	2,838	3,034	2,933	377	480	447	14·09	16·90	14·99	13·3	15·8	15·2	0·5	0·6	0·5	3·7	3·5	3·4
Austria	104	113	119	11	16	19	0·82	1·28	2·37	11·0	13·7	16·0	0·8	1·1	2·0	7·2	8·2	12·5
Denmark	60	48	56	20	22	24	1·77	2·21	2·88	33·1	46·5	42·9	2·9	4·6	5·1	8·9	10·0	11·7
Norway	56	65	68	25	28	32	1·59	2·05	2·30	45·4	43·6	47·7	2·8	3·2	3·5	6·5	7·2	7·1
Portugal	7	8	9	1	2	2	0·58	0·65	0·67	20·0	20·4	20·0	8·3	8·1	7·4	41·4	39·0	37·2
Sweden	137	135	153	55	55	67	4·83	4·27	5·87	40·4	41·0	43·8	3·5	3·2	3·8	8·7	7·7	8·8
Switzerland	127	141	165	42	48	58	4·75	5·52	7·78	33·0	35·1	35·2	3·7	3·9	4·7	11·4	11·4	13·4
EFTA TOTAL —excluding UK	491	510	570	155	171	203	14·34	15·97	21·87	31·6	33·6	35·6	2·9	3·1	3·8	9·2	9·3	10·6
UK	784	801	811	60	70	93	—	—	—	7·7	8·7	11·4	—	—	—	—	—	—
Eire	na	53	44	3	3	4	2·69	2·48	3·71	na	5·9	9·7	na	4·7	8·4	82·0	85·4	86·5
Spain	477	415	402	5	5	7	1·03	1·64	1·89	1·0	1·2	1·8	0·2	0·4	0·5	22·1	32·0	26·2
Canada	na	na	na	27	32	36	6·35	6·33	6·35	na	na	na	na	na	na	23·5	19·6	17·8
USA	na	na	na	222	256	271	15·36	15·97	14·36	na	na	na	na	na	na	6·9	6·3	5·3
Japan	na	na	na	3	4	8	0·29	0·25	0·40	na	na	na	na	na	na	10·5	6·9	5·2

Sources:
Consumption: Secrétariat International des Industries de la Maille.
Imports: OECD Trade Statistics (SITC 841.4). (See Appendix 3, page 149).

Notes:
Imports are in cif values, except USA and Canada which are fob. Total imports figures are rounded to the nearest $1 million and imports from UK to the nearest $10,000.

Total consumption figures are based on manufacturers' sales prices and are rounded to the nearest $1 million.

na=not available.

Portuguese total consumption figures are available only for 1965. We have therefore estimated 1966 at 1965 +15 per cent and 1967 at 1965+30 per cent.

Doubt must nevertheless remain about the supply and demand for garments made up from knitted fabric.

Nevertheless, the picture given by these tables is as good as it is possible to obtain, and should be a fair reflection of the size in recent years of the world's major markets (with the important exception of the USSR, for which figures are not available.)

Table 2.1 shows the total and per capita levels of hosiery and knitwear consumption and imports in 1967 in each of the EEC and EFTA countries and in Eire, Spain, Canada, the USA and Japan. It also shows the increases in consumption and in imports between 1964 and 1967 (the latest year for which figures are available).

In this and other tables in this chapter the term 'knitted garments' covers 'clothing and accessories, knitted or crocheted' as defined by the Standard International Trade Classification 841.4.

Also shown in Table 2.1 are 1967 imports into each country from the UK, both in total and on a per capita basis. (In most countries the per capita figures are so small that a more accurate reflection of the impact of imports from the UK is given by Table 2.2.) The growth in each country's imports from the UK between 1964 and 1967 is also shown in Table 2.1.

Table 2.2 shows the relationship, in the same countries, between total consumption, total imports, and imports from the UK for 1965, 1966 and 1967. The information contained in this table is more vividly illustrated by the charts in Appendix 1.

The year to year fluctuations in consumption are clearly demonstrated by Table 2.2, and it is obvious that any comparison of growth indices or per capita consumption will be influenced by the year selected.

Nevertheless it is useful to discern the main features during the years under consideration (1964–67).

Total consumption in other EFTA countries (Growth Index 120) grew appreciably faster than in the UK and EEC, which had growth indices of 107 and 108 respectively. This is demonstrated by Table 2.1.

Total imports by our EFTA partners and by the EEC countries increased by amounts varying from roughly one third to a half over the years 1964–67, except that Italy's imports grew by much less (11 per cent) and Austria's and Portugal's by much more. During the same period the UK's imports increased by 15 per cent.

The total value of imports by the EFTA countries (excluding the UK) is only 35 to 40 per cent of the total value of imports by EEC countries. On the other hand, our EFTA partners' imports account for around 30 per cent of their total consumption, whilst the corresponding figure in the EEC is around 15 per cent.

Imports from the UK follow very different patterns in the EFTA and the EEC. Every EFTA country's imports from the UK grew much faster than its total imports during the period 1964–67, but in the EEC (Netherlands excepted) the converse was true. Indeed, Italy's and West Germany's imports from the UK actually fell.

Similarly, imports from the UK in 1967 accounted for 10·6 per cent of imports by other EFTA countries but only 3·4 per cent of imports by EEC countries, amongst whom Italy was alone in taking a substantial proportion of its imports from the UK.

For North America, total consumption figures are not available, but imports grew faster there than in Western Europe during 1964–67. Imports from the UK, however, grew by only 2 per cent in Canada and 10 per cent in the USA during this time.

Japanese imports are small but are growing fast. As in North America, imports from the UK have been growing at a much slower rate than total imports.

Turning to the individual countries within Western Europe, we see that West Germany is easily the largest market for knitted garments (1967: $1,195 million) and has a high consumption per head of population (1967: $20·8), In 1967 only the Swiss spent more per head on knitted garments. Imports account consistently for rather more than 15 per cent of West German consumption, but the UK secures less than half a per cent of this total market.

France has the next largest total consumption in Western Europe (1967: $856 million), but imports in 1967 accounted for a smaller proportion of the market (8·4 per cent) than in any other European country except Italy (3 per cent) and Spain (1·8 per cent).

The Dutch import about half their knitted garments and the Belgians about one-third, so that their imports per head of population are higher than those of the other EEC countries and the UK, and are more in line with those of Norway, Sweden and Switzerland. After the USA and West Germany, Holland was the largest importer of all the countries shown in the tables.

Only the Swiss and Irish imported more than one dollar's worth per head of British knitted garments in 1967 ($1·3 each). They were followed by the Scandinavians ($0·6–0·7), the Austrians ($0·3), the Canadians ($0·3) and the Dutch ($0·2). The inhabitants of all the other countries in Table 2.1 spent between 5 and 15 cents per head on British knitted garments (rounded to $0·1 in the table).

These, then, are some of the main features of the situation depicted in Tables 2.1 and 2.2 and in Appendix 1, where any reader who is interested in a particular country can study it in greater detail.

Although no details are available of the USSR's consumption and imports, the importance of that market is indicated by the fact that in 1967 the OECD countries alone reported exports to the USSR of $72 million (fob value).

It is of interest to examine from what other sources, in addition to the UK, major markets are drawing their imports of knitted garments. To answer this question fully would be to go beyond the scope of this study, but much can be learnt from Table 2.7 (page 19) and from Table 2.3, which shows the extent to which imports by major consuming countries are provided by developing countries. The variations from country to country are wide.

Table 2.3 Imports of knitted garments from developing countries by Western Europe, North America and Japan, 1967

Country	*Imports from developing countries* $m	*Imports from developing countries as % of all imports*
Belgium/Luxembourg	0·8	0·1
France	1·2	1·6
West Germany	27·2	14·5
Italy	0·8	5·6
Netherlands	4·9	4·0
EEC TOTAL	34·9	7·8
Austria	1·8	9·6
Denmark	3·1	12·8
Norway	3·5	10·9
Portugal	*	0·5
Sweden	18·0	27·0
Switzerland	5·9	10·1
EFTA TOTAL—excluding UK	32·4	16·2
UK	41·7	45·0
Eire	0·1	2·0
Spain	0·5	6·5
Canada	8·6	24·0
USA	111·1	41·0
Japan	3·1	40·6

Sources:
OECD (SITC 841.4). (See Appendix 3, page 149).
Notes:
For the purpose of this table, developing countries are:
in Europe: Yugoslavia
in Africa: all except South Africa
in America: all except Canada and USA
in Oceania: all except Australia and New Zealand
in the Far East: all except Japan and China
in the Middle East: Cyprus, Syria, Lebanon, Israel, Jordan, Iran, Saudi Arabia, Yemen, Aden, Kuwait, Bahrain, Iraq.
* Less than $0.1 million.

So far we have been concerned with all knitted and crocheted clothing and accessories (SITC 841.4). Table 2.4 is designed to show the relative importance in international trade of different categories within this overall heading.

Table 2.4 Total imports of knitted garments, woven outerwear and all clothing, with UK percentage shares; Western Europe, North America and Japan, 1967

	Knitted garments						*Woven outerwear*				*All clothing*		
	Under		*Outer*		*Other*		*Men's and boys'*		*Women's and girls'*				
Importing country	*Total* $m	UK *share* %	*Total* $m	UK *share* %	*Total* $m	UK *share* %	*Total* $m	UK *share* %	*Total* $m	UK *share* %	*Total* $m	*Per head* $	UK *share* %
Belgium/Luxembourg	7	1·2	27	3·2	17	0·5	22	1·6	25	3·0	117	11·8	2·4
France	6	1·0	47	7·6	19	1·9	24	6·7	16	10·0	137	3·5	6·1
West Germany	41	0·7	127	2·3	19	2·3	73	1·4	85	3·2	431	7·2	2·1
Italy	3	5·8	8	42·9	4	3·3	4	43·8	12	10·8	45	0·9	20·0
Netherlands	14	1·2	89	2·0	19	0·9	45	1·3	64	4·5	270	21·5	2·9
EEC TOTAL	71	1·5	298	4·3	78	1·8	168	3·2	202	3·9	1000	5·5	3·7
Austria	6	3·4	11	17·8	2	10·0	9	4·4	8	20·6	45	6·2	11·6
Denmark	4	7·7	11	16·1	9	9·2	8	6·0	14	33·1	65	13·5	15·9
Norway	7	4·5	18	9·5	7	3·7	9	3·5	20	16·5	77	20·3	10·8
Portugal	0·1	15·4	1	40·6	0·5	36·8	0·2	34·7	0·4	58·8	4	0·4	36·0
Sweden	15	6·4	34	11·9	18	4·7	26	3·5	32	26·5	161	20·3	12·1
Switzerland	9	2·4	44	16·2	5	9·1	15	8·8	37	15·8	146	23·9	12·2
EFTA TOTAL—excluding UK	41	5·0	119	14·4	41	6·7	67	5·2	111	21·8	498	12·7	12·5
UK	25		54		13		42		42		229	4·2	
Eire	0·9	93·2	2	81·9	1	95·4	0·9	64·4	3	90·2	12	4·1	84·6
Spain	0·3	5·1	6	30·0	1	9·1	1	13·3	2	34·6	15	0·5	20·0
Canada	5	19·7	28	15·9	3	47·8	21	8·4	18	5·0	110	5·4	10·1
USA	36	1·6	219	5·6	16	10·0	73	5·7	119	3·0	649	3·3	4·1
Japan	0·5	7·2	6	4·6	1	10·4	0·9	29·6	3	3·6	16	0·2	6·6

Source:
OECD Trade Statistics (SITC 84). (See Appendix 3, page 149).
Notes:
Imports are in cif values, except USA and Canada which are fob.
Total figures are rounded to nearest $1 million, except for figures of less than $1 million.
Per capita figures are rounded to nearest $0.1.
The table records each country's imports from the rest of the world and the percentage of those imports originating in the UK.

Import and export statistics are published separately for two of the five sub-headings of SITC 841.4. These two are 'Under garments' and 'Outer garments'. The other three headings—comprising 'Gloves etc', 'Stockings etc' and all 'Elastic or Rubberised Knitted or Crocheted Fabric and articles thereof'—are therefore shown together as 'Other' in Table 2.4. The first three 'Total' columns in Table 2.4 are thus an analysis of the 1967 total imports column in Table 2.2.

Because knitted outerwear is increasingly competing with woven outerwear, Table 2.4 also shows imports of the latter for the purpose of comparison. To put in perspective the importance of knitted garments and of woven outerwear, this table includes figures of imports of all clothing; these figures are also shown per capita, and may be compared with Table 2.1.

Finally, Table 2.4 shows the UK's share of the imports in each group of garments. It will be noted that in every EEC and EFTA country the UK secured a higher share of knitted outerwear imports than of either of the other categories of knitted garment imports.

The UK market

In Chart 1 on page 6 we summarise the UK demand for each garment category and show the import threat, in 1968, 1973 and 1978. Each category is discussed in more detail in Chapters 6–12.

Table 2.1 shows that, during the period 1964–67, both consumption and imports of knitted garments and accessories were growing slower in the UK than in almost all the other countries studied. Consumption per head and imports per head were low in comparison with the great majority of the other countries.

Before discussing likely future developments, it is of interest to look at the UK's imports of knitted garments and fabric over a longer past period (Table 2.5).

Table 2.5 UK imports of knitted garments, 1961–69

Year	*Value* £m cif	*Index* 1961=100
1961	15·8	100
1962	21·7	137
1963	25·3	160
1964	25·7	163
1965	20·2	128
1966	23·9	151
1967	32·9	208
1968	43·4	274
1969 (3 quarters)	35·4	302

Source:

NEDO Statistical Bulletin.

Based on HM Customs & Excise.

Note:

Knitted shirts are included in these figures: See notes to Table 2.13.

A comparison of Table 2.5 with Table 2.10 shows that the UK's imports of knitted garments have grown slightly more quickly than its exports since 1961; and have exceeded exports in value except in two years. Knitted garments represented 40 per cent (by value) of the UK's total clothing imports in 1968, which amounted to £110 million (compared with total clothing exports of £96 million).

The lack of appropriate international trade statistics prevented any discussion of knitted fabrics on page 11, but Table 2.6 shows the UK's imports of knitted fabrics since 1962.

Table 2.6 **UK imports of knitted fabrics, 1962–69**

Year	*Value* £m cif	*Index* 1962=100
1962	2·9	100
1963	3·5	121
1964	3·8	131
1965	2·7	93
1966	3·2	110
1967	4·7	162
1968	7·0	241
1969	6·4	288
(3 quarters)		

Source:

HM Customs & Excise.

More detailed information about the amounts and sources of the UK's imports of different groups of garments and of fabrics may be found in Chapters 6–12.

MAJOR EXPORTERS OF HOSIERY AND KNITWEAR

Having looked at consumption and imports in major hosiery and knitwear markets in recent years, we now turn to the major exporters.

Table 2.7 shows the major flows of exports of knitted garments in 1967. For this purpose, major flows have been defined as $5 million or more. It will be seen that trade within the EEC is extensive: exports by EEC countries to fellow EEC members amounted to $362 million in 1967. Exports by EEC countries to EFTA ($81 million, excluding the UK), North America ($101 million) and Eastern Europe ($10 million) are also substantial.

Table 2.8 analyses the major exporters' 1967 exports by the same sub-headings as the knitted garment imports in Table 2.4.

In Table 2.9, as well as showing the growth in exports between 1964 and 1967, we have listed the major exporters in the order of the value of their exports in 1967. Italy is easily first ($350 million), followed by Hong Kong ($151 million, but see the footnote to the Table). France ($139 million), Japan ($114 million) and West Germany ($94 million). After that come the UK and Belgium/Luxembourg, each with $58 million.

To put these figures in perspective, it is, of course, necessary to relate them to a number of other factors, of which total production and number of employees are two obvious ones. An examination of this kind is beyond the scope of this study, but could prove illuminating.

To show how radically the ranking order changes, we have included a further two columns in Table 2.9, Number of hosiery and knitwear employees and value of exports per employee. An interesting picture emerges: Denmark, tenth in order of value of exports, is first in value per employee. The UK equal sixth with Belgium in value of exports, sinks to last but one of the fourteen countries for which we can calculate value of exports per employee. In contrast, Belgium rises to second place.

If one country had to be singled out for study, Italy is the obvious candidate. Here is another European country with roughly the same number of hosiery and knitwear employees as the UK, but with exports in 1967 of roughly six times the value of ours.

Table 2.7 Major export flows of knitted garments—1967 ($ m)

To From	Belgium/Luxembourg	France	West Germany	Italy	Netherlands	EEC	Austria	Denmark	Norway	Sweden	Switzerland	EFTA excluding UK	UK	USA and Canada	Eastern Europe	WORLD
Belgium/Luxembourg					44	51										58
France	14		31	5	6	56					10	17	5	7	48	139
West Germany	6	11			30	50	7				10	24		5	5	94
Italy	16	47	89		34	186		6		10	14	39	8	85	10	350
Netherlands	11		7			19										23
EEC	47	62	131	9	113	362	12	10	6	18	35	81	16	101	20	664
Austria						7					5	9	5	5		29
Denmark									11	11		23				28
Norway																7
Portugal												4	8			16
Sweden												8				14
Switzerland						7						5				19
EFTA excluding UK			9			17		6	17	18	7	70	19	11	6	113
UK						9						11		15	10	58
Eire													5			8
Spain																8
USA and Canada						5								5		36
Japan														45	30	114
Hong Kong			16			21				8		19	38	70	na	na

Source: OECD (SITC 841 4) (See appendix 3).

Notes: Values are fob, except that Hong Kong's exports are in cif values.
Table shows only flows of more than $5 m.
na=not available.
USA accounts for $32 m of the $36 m exports by USA and Canada.
No adjustment for parcel post.

Table 2.8 Analysis of exports of knitted garments by major exporting countries, 1967

Country	*Under garments* $m	*Outer garments* $m	*Other* $m
Belgium/Luxembourg	7·9	39·6	10·8
France	11·3	66·0	61·8
West Germany	22·5	46·8	24·8
Italy	21·2	286·2	42·3
Netherlands	4·8	11·7	6·3
EEC TOTAL	67·7	450·3	146·0
Austria	3·8	17·5	7·6
Denmark	7·3	16·3	4·2
Norway	1·0	4·6	1·5
Portugal	9·9	5·0	1·1
Sweden	2·6	9·2	2·4
Switzerland	4·1	10·4	4·6
EFTA TOTAL—excluding UK	28·7	63·0	21·4
UK	3·5	44·8	9·7
Eire	0·9	5·9	1·0
Spain	3·0	4·0	0·8
Canada	0·2	3·2	0·7
USA	8·5	11·3	11·9
Japan	7·4	90·3	16·1

Source:

OECD (See Appendix 3, page 149).

Notes:

Values are fob

No analysis is available for Hong Kong

No adjustment for parcel post.

Table 2.9 Major exporters of knitted garments, ranked in order, by value, 1967

Exporting countries ranked in order of value of total exports	*Value of total exports* $m	*Growth index* 1964=100	*Number of hosiery and knitwear employees* '000	*Exports per employee*	
				Value $	*Rank Order*
1 Italy	350	140	145	2,410	3
2 Hong Kong	151*	140	na	na	na
3 France	139	116	99	1,400	5
4 Japan	114	228	na	na	na
5 West Germany	94	162	129	730	11
6 Belgium/Luxembourg	58	116	22	2,640	2
7 United Kingdom	58	132	125	460	13
8 USA	32	107	na	na	na
9 Austria	29	132	24	1,210	8
10 Denmark	28	147	9	3,120	1
11 Netherlands	23	115	17	1,350	7
12 Switzerland	19	112	16	1,190	9
13 Portugal	16	229	25	640	12
14 Sweden	14	140	10	1,400	5
15 Eire	8	200	7	1,140	10
15 Spain	8	267	44	178	14
17 Norway	7	117	4	1,750	4
EEC	664	133	312	2,130	—
EFTA excluding UK—	113	140	88	1,280	—

Sources:

Value of total exports—OECD (SITC 841.4). (See Appendix 3, page 149).

Number of hosiery and knitwear employees—Secrétariat International des Industries de la Maille.

Notes:

*Hong Kong figure represents exports to OECD countries only, and is in cif value.

Other values are fob

No adjustment for parcel post

na=not available

AIC has had no opportunity to check the accuracy of the numbers of employees in each country.

The UK's export performance

Table 2.9 shows that in the past the UK's performance in exporting hosiery and knitwear has compared unfavourably (in terms of value and, especially, value per employee) with the performance of other major producers.

The UK's exports in 1968 and 1969 have been growing faster than in preceding years, and—as we suggest later—there is scope for British exporters to continue to improve this position. Therefore, it is worth examining the UK's exports in more detail.

We have already looked at UK exports from the point of view of importing countries on page 11, and it is there that the best idea can be obtained of the UK's penetration of various markets.

In the product monographs in Chapters 6–12 we discuss the UK's exports of each group of garments in greater detail, and the purpose of this section is simply to give a general view of the UK's exports of knitted garments.

Table 2.10 shows the growth of the UK's exports of knitted garments over the years 1961–69.

Two sets of figures are given, the first without parcel post, the second including an additional allowance of 40 per cent for parcel post. (For further explanation, see Appendix 3). We made no adjustment to the UK figures in Tables 2·7 to 2·9 since we have no means of knowing how accurately other countries record their exports by parcel post.

Table 2.10 UK exports of knitted garments, 1961–69

Year	*Value fob* £m	*Value fob** ×140% £m	*Index*
1961	11·1	15·5	100
1962	11·9	16·7	108
1963	14·0	19·6	126
1964	15·0	21·0	136
1965	16·2	22·7	147
1966	17·2	24·1	155
1967	21·1	29·5	190
1968	27·1	37·9	244
1969 (3 quarters)	23·8	33·3	285

* To allow for parcel post
Source:
NEDO Statistical Bulletin
Based on HM Customs & Excise
Note:
Knitted shirts are included in these figures: See notes to Table 2.13.

Table 2.11 shows the UK's exports to our eight largest customers in 1967 and 1968. (To facilitate comparisons, we have shown the values in both sterling and dollars).

No attempt has been made to increase the values of the UK's exports to individual destinations in Table 2.11. Although it is possible to estimate the approximate total value of the UK's parcel post exports, there are no criteria on which to base an allocation to individual destinations.

Table 2.11 UK exports of knitted garments, by destination, 1967 and 1968

	1967			1968			
Destination	£m	$m	*% of Exports (by value)*	£m	$m	*Growth index* 1962=100	*% of exports (by value)*
USA	4·18	11·7	20	5·96	14·3	164	22
USSR	2·98	8·3	14	3·31	7·9	1,390*	12
Canada	1·22	3·4	6	2·01	4·8	165	7
Switzerland	1·58	4·4	8	1·80	4·3	277	7
Sweden	1·26	3·5	6	1·75	4·2	261	7
Eire	0·79	2·2	4	1·28	3·1	298	5
France	1·12	3·1	5	1·21	2·9	281	4
West Germany	0·73	2·0	3	1·06	2·5	183	4
Other foreign Countries	7·30	20·4	34	8·60	20·7	—	32
TOTAL	21·1	59·0	100	27·0	64·5	226	100

Source:
HM Customs and Excise (SITC 841.4)
Notes:
Values are fob
No allowance for parcel post
Conversion rates: 1967 £1=$2.80
1968 £1=$2.40
The slight discrepancy between the 1967 total here ($59m) and in earlier tables ($58m) is probably due to differing assumptions about exchange rates in a year when the £1 was devalued.
*1963=100.

Lack of information prevented the inclusion of knitted fabrics on page 18. but Table 2.12 shows the UK's exports of knitted fabrics since 1962. It will be seen that these exports have consistently exceeded the corresponding imports (Table 2.6).

Table 2.12 UK exports of knitted fabrics, 1962–69

Year	*Value* £m fob	*Index* 1962=100
1962	4·1	100
1963	4·3	105
1964	4·6	112
1965	4·9	120
1966	5·9	144
1967	7·2	176
1968	11·4	278
1969 (3 quarters)	14·0	455

Source:
HM Customs and Excise
Note:
No allowance for parcel post

More detailed information about the amounts and destinations of the UK's exports of different groups of garments and of fabrics may be found in Chapters 6–12.

THE FUTURE FOR THE UK's IMPORTS AND EXPORTS OF HOSIERY AND KNITWEAR

It will be apparent from the detailed comments in Chapters 6–12 that there are wide variations between the trade balances in different garment groups. Therefore, whilst Table 2.13 does reflect the performance of the UK hosiery and knitwear industry as a whole, it is necessary to remember that these figures are built up from positive and negative trade balances in individual groups of garments.

Table 2.13 UK trade balance in knitted garments and knitted fabric, 1961–68

	Imports	*Exports*			
Year	*Garments and fabrics*	*Garments* × 1·4	*Fabric*	*Garments* × 1·4 *and fabrics*	UK *Trade Balance* £m
1961	18·8	15·5	3·9	19·4	+ 0·6
1962	24·6	16·7	4·1	20·8	− 3·8
1963	28·8	19·6	4·3	23·9	− 4·9
1964	29·5	21·0	4·6	25·6	− 3·9
1965	22·9	22·7	4·9	27·6	+ 4·7
1966	27·1	24·1	5·9	30·0	+ 2·9
1967	37·0	29·5	7·2	36·7	− 0·3
1968	50·4	37·9	11·4	49·3	− 1·1

Source:
NEDO Statistical Bulletin
Based on HM Customs and Excise
Notes:
Export figures for garments include an additional 40 per cent allowance for parcel post; negligible quantities of knitted fabrics are exported by parcel post
Knitted shirts are included in both the import and export statistics and it is estimated that in 1968 they contributed minus £5 million to the trade balance, ie excluding knitted shirts, the 1968 trade balance was approximately +£4 million. (cf Table 2.14).

What may be expected in the future? In the monographs on different groups of knitted garments and on knitted fabrics (Chapters 6–12), we have discussed the trends of exports and imports and the factors likely to influence them over the next ten years.

It is extremely difficult to predict future trends accurately, depending as they do on future terms of trade, trading agreements, marketing and technical ability, political considerations and other imponderables.

However, within this uncertain framework, we have attempted to indicate likely developments. It must be stressed, therefore, that the figures used in our forecasts indicate the possible size of threats or opportunities; they cannot be regarded as certain predictions. The method of forecasting is outlined in Appendix 3.

It will be noticed that in some garment groups the range between our upper and lower estimates is rather small and in other groups very large. This reflects our uncertainty as to how the UK industry can or will react to import threats or export opportunities in the coming decade. We hope that some of these forecasts will themselves lead to more vigorous action, and thereby be proved wrong.

In Table 2.14 we summarise the forecasts made in Chapters 6–12. There are a number of general factors of relevance (or potential relevance) to all groups of garments and fabrics, which require comment first.

Quotas and tariffs

At the present time, quotas do not greatly affect the UK's imports of knitted garments. Two areas are affected by quotas: Japan and Eastern Europe. In addition, there is a voluntary export control exercised by the Japanese under the terms of the Anglo-Japanese Commercial Treaty. This limits the imports of knitted fabrics of man-made fibres and apparel (excluding gloves), netted or crocheted material of cotton, wool or man-made fibres (including stockings and socks) to a value of £1,227,000 in 1969.

UK tariffs are currently being reduced in line with undertakings given in the GATT Kennedy Round. The full reduction will be staggered, and will come into total operation on 1 January, 1972. For most categories of knitted garments the tariff level will be 20 per cent.

There is no tariff due on imports from EFTA countries. Commonwealth preference agreements reduce the tariff payable by 10 per cent, though under a number of headings our fellow members of the Commonwealth enjoy lower tariffs than that. Eire has a special trading relationship with Great Britain, employing a separate tariff structure.

The above paragraphs are intended to present a general comment regarding quotas and tariffs. A complete treatment would take a disproportionate amount of space in this study, but may be found in the appropriate Government publication (*Customs and Excise Tariffs of the United Kingdom*, HMSO).

Brief information about quotas, tariffs and taxes in operation in other countries is given in Appendix 1.

The UK, EFTA and the EEC

We have already noted on page 14 the difference between the UK's share of the EFTA market and the UK's share of the EEC market. In a similar way, the UK's imports from EFTA countries have been growing faster than imports from the EEC.

Unfortunately, the size of the EFTA market in which the UK is so successfully competing is approximately one half that of the Common Market countries, and more than half the EFTA market is accounted for by the UK itself. At the same time Portugal is a source of cheap clothing within EFTA comparable to Hong Kong within the Commonwealth. The net effect has, therefore, been for imports from EFTA to grow more quickly than exports to EFTA.

Entry into the Common Market or some similar trading community would certainly increase exports of hosiery and knitwear. In 1967 the Common Market countries took 4 per cent of their total knitted outerwear imports from the UK. The corresponding figure for the EFTA countries was 14 per cent (see Table 2.4). Although the UK could not be expected to achieve this high penetration in the Common Market countries, there would overall be scope for doubling or even trebling current exports. However, it is likely that our penetration of EFTA markets would suffer in these circumstances by diversion of capacity and effort, all the more so if other EFTA countries joined with the UK. The timing and composition of new trading areas are impossible to forecast, and therefore we have not made a complete set of alternative forecasts to cover the possibilities. Rather, we would expect the UK's exports of all clothing to achieve an accelerated growth rate, producing an extra £20 million a year in exports, by the end of the ten year period, if a full European free trade grouping materialises.

The pattern of British imports differs from that of all other European countries in that exports from developing countries (almost all from Hong Kong) account for a large proportion of the total. Although there is some decline in the proportion of British imports from Hong Kong, they are nevertheless growing in absolute terms. If Britain were associated with a large European trade grouping, the preferential treatment of developing colonies and Commonwealth members might well disappear, with significant effects on our import pattern. A comparison of the proportion of the UK's imports coming from developing countries with the corresponding figures for the EEC countries (Table 2.3) gives an indication of what might happen, if Britain adopted policies similar to those of other European countries. To some extent the Commonwealth is already being replaced by Portugal as a source of cheap imports. However, the overall effect should be favourable to the trade balance. The new markets for British exports should more than compensate for the easier access to Britain for the Common Market countries. This is principally because the British hosiery and knitwear industry is well equipped to combat the type of import which we would anticipate from the EEC.

Quality

There can be no doubt that British exports of clothing, including hosiery and knitwear, sell on quality and style. Analysis of reports from British embassies abroad has confirmed this without exception. It is, therefore, only if this standard of quality is maintained and exploited that the export potential inherent in our forecasts can be realised.

Marketing

Reports from overseas markets indicate that British clothing is held in high regard, but that marketing failures are apparently militating against full exploitation of export potential. Criticisms of delivery times, representations, attention to consumer needs etc are, of course, often aimed at foreign suppliers, but it does seem that the UK is being singled out as being weak in these respects. Even so, we think that relatively elementary improvements in marketing would have a marked effect on export growth.

Price

Our work suggests that price is not critical to success in export markets. Quality and effective marketing are far more important. Significant price increases would obviously diminish the share of the market obtained by British exports. But major relative price movements are not expected. The UK is starting the period under review with the advantage given by devaluation.

On the other hand, in competing with imports in the UK market, price is crucial. Imports are competing at the cheaper end of the market, by and large, where it is mainly price and apparent value for money which determine choice. The consumer is almost totally unaware of, and indifferent to, country of origin.

Forecasts

These general comments should help to explain why our export forecasts indicate potential rather than expectation. The actual outcome depends very much on the industry's attitude to exporting, the maintenance of the high quality of British hosiery and knitwear, and the degree of improvement in marketing methods. The forecasts indicate, however, the great rewards available, to those companies willing and able to grasp the opportunities, which are emphasised by the difference between our most likely forecasts and the upper limits.

Hitherto, we have seen very successful export performances by some firms and little or no activity on the part of the rest.

The British industry has undoubtedly the capability to achieve our upper forecast of exports given the advantages of devaluation, if attention is given to the crucial factors of quality maintenance and skilled marketing.

As can be seen, the major opportunities are in knitwear and outerwear. Current performance would indicate that very high levels are attainable for many garment groups, particularly women's suits, dresses and separates, and men's and women's knitwear.

As indicated in our economic forecasts, outerwear is the area where consumer expenditure is increasing most rapidly, and this applies also to our export markets. In addition, the British high-price, high-quality garments are the least susceptible to tariff barriers, whereas innerwear sales depend critically on price and value for money in the mass market. Export costs for innerwear become critical in this situation and competition from indigenous manufacturers is much fiercer.

Import growth is forecast to be substantial in all the main garment groups, but the bulk of these imports are at the very cheap, light end of the market. The major growth areas for imports are underwear, nightwear and knitwear.

The latest evidence about the import threat includes the following:

recent import trends (increases over the previous year of over 30 per cent in 1967 and 1968 and at the rate of 20 per cent in the first half of 1969);

the announcement of intentions by South Korea and Hong Kong to market more actively in the UK;

a reported build-up of knitting capacity in Taiwan and certain other developing countries;

a reported trend for businessmen to organise garment trading on an international basis, buying fabric and making-up capacity in cheap labour markets but design and marketing skills in more advanced markets;

the recent imposition of tariffs on woven cotton fabric and garments made therefrom, which could cause developing countries to concentrate more on knitwear.

Table 2.14 Forecasts of UK exports and imports of knitted garments and knitted fabrics

		1968	1973				1978			
				Most likely				*Most likely*		
		£m	*Lower* £m	£m	*Index* 1968=100	*Upper* £m	*Lower* £m	£m	*Index* 1968=100	*Upper* £m
Men's and boys' knitwear	E	13	18	22	170	26	21	31	240	40
	I	7	10	12	170	17	16	19	270	29
Women's and girls' knitwear	E	11	12	14	130	16	14	18	165	22
	I	8	8	12	150	19	9	20	250	32
Women's tights and stockings	E	2	4	7	350	8	5	11	550	13
	I	6	8	10	165	12	10	12	200	14
Other hose	E	3	3	3	100	4	4	4	135	5
	I	*	*	1	nc	1	1	1	nc	2
Dresses	E	2	4	6	300	8	7	12	600	17
	I	2	3	4	200	6	5	7	350	14
Women's and girls' other outerwear	E	4	8	12	300	15	13	24	600	36
	I	8	9	12	150	17	13	17	215	24
Men's and boys' outerwear	E	*	*	1	nc	2	1	2	nc	3
	I	*	*	1	nc	2	2	4	nc	5
Women's and girls' lingerie and nightwear	E	1	2	3	300	3	3	4	400	4
	I	2	3	5	250	6	4	8	400	12
Men's and boys' nightwear	E	*	*	*	nc	*	*	*	nc	1
	I	*	1	1	nc	2	2	3	nc	4
Men's and boys' underwear	E	1	1	1	100	1	1	1	100	1
	I	3	6	7	235	8	8	10	335	12
Other garments	E	2	3	3	150	3	4	4	200	5
	I	3	4	5	165	6	6	8	265	10
Knitted fabrics	E	11	21	25	230	29	35	42	380	49
	I	7	12	15	215	18	19	25	360	31
TOTAL	E	50	76	97	195	115	108	153	305	196
	I	46	64	85	185	114	95	134	290	189

Notes:
E =Exports
I =Imports
* =less than £½ million
nc=not calculable
Women's tights and stockings forecasts include panti-hose
Index figures are rounded to nearest 5

Our most likely forecasts do show a marked increase in imports for many garment groups (see Table 2.14) eg:

men's and boys' knitwear	+ 170% by 1978
women's and girls' knitwear	+ 150% „ „
tights and stockings	+ 100% „ „
dresses	+ 250% „ „
women's and girls' lingerie and nightwear	+ 300% „ „
women's and girls' other outerwear	+ 115% „ „
men's and boys' underwear	+ 235% „ „
knitted fabics	+ 260% „ „

Our upper limits show how serious the threat could become if all relevant factors acted together in an adverse direction (which we think unlikely) eg:

men's and boys' knitwear	+ 300% by 1978
women's and girls' knitwear	+ 300% „ „
tights and stockings	+ 135% „ „
dresses	+ 600% „ „
women's and girls' lingerie and nightwear	+ 500% „ „
women's and girls' other outerwear	+ 200% „ „
men's and boys' underwear	+ 300% „ „
knitted fabrics	+ 350% „ „

The reasons for taking a less pessimistic view in our most likely forecast are generally that each extra percentage increase in market share is more difficult for imports to obtain than the previous increases. Further expansion would have to be mainly into the higher quality and price strata of the market, where UK manufacturers are especially strong. To compete successfully, the manufacturers of cheap imports would require more advanced machinery and more skilled management and labour, all of which would increase their prices and reduce their competitiveness.

None the less, we do not wish to under-emphasise the very serious scale of the import threat, which is discussed in more detail for individual garment categories in Chapters 6–12.

Chapter 3 The social and economic background

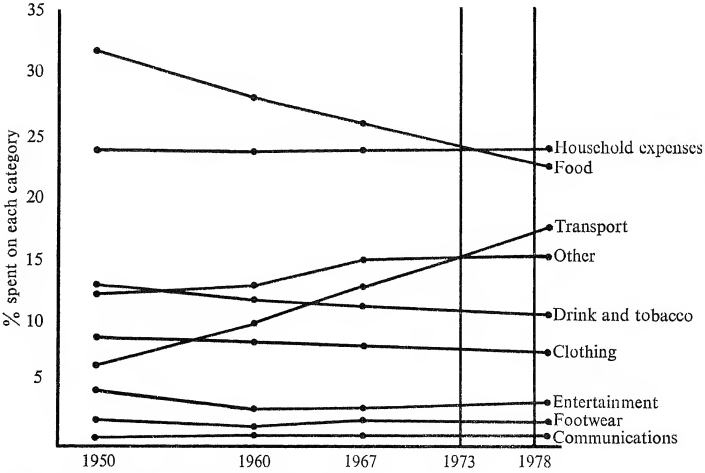
INTRODUCTION

The views expressed in this chapter are based on the analysis of published information and statistics, on interviews with informed sources and on consumer attitude research (see Appendix 4).

The chapter relates to the UK, but analogous features are to be expected in other economically developed societies. To identify and understand the social and economic background is an important step towards success in any market.

Chart 3 shows estimates of expenditure by consumers in the UK since 1950, together with our forecasts for 1973 and 1978.

Chart 3 UK consumer expenditure, 1950-1978



Source: The family expenditure survey and AIC estimates

MAIN FACTORS

Consumers' attitudes to expenditure on clothing

The overall long term demand for clothing is very inelastic and insensitive to marketing measures. We have explained in the previous chapter why this does not apply to hosiery and knitted garments in the immediate future. Thereafter we forecast that expenditure patterns will become more rigid again. The rigidity in expenditure is shown by our consumer research findings to be based on the following:

Consumers have, on the whole, definite limits to the price they will pay for most garments, and to the appropriate number of garments to have in their wardrobe at any one time. Both these factors clearly restrict consumer expenditure although probably young people are much less constrained by either factor.

When consumers have gifts or 'windfalls', the effect is not to increase the number of garments they possess. If the gift or windfall is a garment, they tend to divert money otherwise likely to be spent on such a garment, to some non-clothing article. If the gift is money, it tends not to be spent on clothing.

Clothing does not appear to be regarded as a distinct item of expenditure in the household budget (although the evidence for this is somewhat limited). Clothing tends to be regarded as a requirement to be met out of what is left after all the bills are paid, partly because clothing purchases can often be deferred—at least in the case of adults. In addition, many people rely on being given clothes as presents.

Consumer attitudes towards clothing are very stable and when they do change they change slowly.

People, especially men, are reluctant to throw clothes away before they are physically worn out. This attitude, together with the longer life of many garments due to the growing use of man-made fibres and the limited storage space available to most consumers, acts against increased clothes purchases.

There may be some scope for increasing expenditure on clothing as new types of garments are introduced for which the consumer has no reference price. In particular, such opportunities will arise in the leisure field; but we think the development of clothes purely for leisure purposes will be a slow evolutionary trend, and, although it may be possible to accelerate the trend through effective marketing, an overlap in clothing used for both work and leisure will continue to be widely accepted as normal.

The size and composition of the UK population

The UK population is forecast to grow by 6 per cent over the next decade. Table 3.1 analyses the UK's 1968 population by age group and gives official projections of changes.

Table 3.1 UK population (m) for specific age groups, 1968–78

	1968		1973		1978		
Age group	*No*	*Proportion* %	*No*	*Proportion* %	*No*	*Proportion* %	% *Growth* 1968–78
0–14	13,143	23·7	14,000	24·6	14,681	25·0	+11·7
15–19	3,958	7·1	3,930	6·9	4,456	7·6	+12·6
20–24	4,247	7·6	4,041	7·1	4,024	6·9	− 5·3
25–29	3,478	6·3	4,206	7·4	4,014	6·8	+15·4
30–49	13,837	25·0	13,403	23·6	14,023	23·9	+ 1·3
50–64	9,861	17·8	9,881	17·3	9,613	16·3	− 2·5
65 and over	6,925	12·5	7,492	13·2	7,960	13·5	+15·0
TOTAL	55,459	100	56,953	100	58,771	100	+ 6·0

Source: Government Actuary

Analysis of garment purchasing by different age groups confirms the widely held intuitive view that young people (15–29) are an extremely important part of the market as regards both numbers of purchases and total expenditure.

This stems from their fashion consciousness, their spending power (until marriage and birth of first child) and the need to build up their wardrobes after leaving school. As the projections show, there will be a slight increase in the proportion of young people in the population, which should have a modest positive effect on trends in clothing expenditure.

Table 3.2 indicates the degree to which young people are heavy buyers of most types of clothing, relative to their proportion in the adult population.

Table 3.2 Share of UK clothing purchased by young people—1968

	15–19 age group (7·5% of male population)		*20–29 age group (15% of male population)*	
Men's wear	*Volume** %	*Expenditure* %	*Volume* %	*Expenditure* %
Suits	16	16	27	26
Jackets	25	22	24	23
Shirts	12	11	24	25
Pyjamas	10	10	16	18
Rainwear	15	16	21	20
Trousers	25	28	30	26
Knitwear	22	22	28	31
Coats	30	22	19	17
Socks	14	13	25	23

	15–19 age group (7% of female population)		*20–29 age group (13% of female population)*	
Women's wear	*Volume* %	*Expenditure* %	*Volume* %	*Expenditure* %
Coats	17	20	23	23
Rainwear	12	13	18	17
Trousers	28	30	35	32
Knitwear	18	19	23	23
Blouses	16	16	21	19
Skirts	28	21	25	27
Nightdresses	14	21	25	25
Underwear (pants, briefs and knickers)	19	20	24	22
Waist slips	39	40	38	36
Full slips	12	14	22	23
Stockings	10	11	19	18

Source: ICI Fibres Ltd
**Note:* Volume=units of clothing.

There is some evidence that children's clothing will become more fashion conscious and that trading up in quality will take place. However, without more detailed research, we did not feel justified in forecasting an above average growth rate for expenditure on children's clothing.

The 30–50 age group accounts for one quarter of the total population and almost 40 per cent of the working population. This sector of the market, representing the bulk of the purchasing power in the working population, will become rather more important. This is because there is evidence that the Industry and retailers have over-concentrated on young people, and that for many people aged over 30 it has become increasingly difficult to find what they want.

Wider distribution of purchasing power

The rise in the general standard of living, which implies a wider distribution of purchasing power, is closely related to the social changes described throughout this report, and tends, directly or indirectly, to expand the market for clothing of all kinds, particularly outerwear. We forecast that incomes will rise by 30 per cent in real terms over the period 1968–78. (This forecast is based on *The Task Ahead* up to 1972 and on AIC estimates 1972–78.) So far as particular garments are concerned, we forecast that women's outerwear, children's wear, men's trousers and men's knitwear will benefit most from increased disposable incomes.

Increasing fashion consciousness

There are various types of fashion: seasonal changes; long term trends; and vogues where all wear the same, as distinct from wearing individual versions of a 'trendy' style.

We believe that the demand for fashion garments by a growing proportion of the population will continue to be a significant growth factor in clothing in general, and in ladies' outerwear, skirts, knitwear and children's wear in particular. While the consumer attitude research revealed that there may be some reaction against fashion as such, mainly in the narrow seasonal sense, we believe the long-term trend is towards greater fashion consciousness. The increase in fashion is closely related to other changes, such as the emergence of leading designers of clothing for the mass market, the success of boutiques both as independent shops and in department stores, the decrease in class differences and habits and the attention paid by manufacturers of all clothes to the purchasing habits of young people, especially teenagers with their increased disposable incomes. We have already drawn attention to the importance of young people in the clothing market. They are also important because of their fashion consciousness which influences the purchases of other age groups. They themselves tend to retain some fashion consciousness as they grow older although they tend to buy clothes less often and from different outlets.

The decline of class differences

We consider that the gradual decline in differences between classes is contributing to the demand by a larger proportion of the population to be better dressed. This is affecting nearly all types of clothing. We think it will continue, and will lead to greater discrimination by consumers, wider appreciation of value for money, more demand for variety in fashion garments and possibly a slightly higher acquisition or replacement rate. Parallel with this, the current trend towards greater informality in clothing is likely to continue, favouring knitted goods, and may affect a wider range of garments than it does at present.

The growth in demand for 'easy-care' garments

Demand for easy-care finishes is likely to increase to the point where it will be difficult to sell some types of garments without easy-care finishes. The main effect of this trend will, of course, be upon the fabric supplier rather than the making-up industry, and it will be particularly important for fabric suppliers to meet the consumer's requirements in this respect in trousers, children's wear and, to a lesser extent, in men's suits. Again, knitted garments should benefit.

The one major area of improvement still required by the consumer is in rationalising or simplifying the washing, drying and ironing instructions for fabrics made out of a proliferating range of man-made fibres, blends and brands. The consumer attitude research revealed considerable confusion among consumers over whether garments should be spun-dried or tumble-dried, for example, and what the right ironing temperature should be. One possible and desirable effect of the fierce competition between fibre interests may be to bring about some form of rationalisation or simplification in the laundering of garments with an easy-care finish.

Problems of sizing

Many consumers claim that sizing is a problem, and we think it may be acting as a restraining influence on the level of purchases. Probably only a minority of consumers finds sizing problems an important constraint on choice, but a much larger proportion claims to suffer some irritation and annoyance. Sizing is important for all the main items of outerwear. From our consumer attitude research, we have concluded that sizing problems can have a number of quite important effects:

When minor difficulties in sizing are overcome, continued loyalty to a particular brand or outlet is generated; this suggests a major opportunity.

There are often large gaps between stock sizes, making alterations necessary; though consumers appear to recognise that individual peculiarities of shape have to be coped with by minor alterations.

Many people feel that while their shape is not particularly unusual, manufacturers have not paid sufficient attention to providing a range of garments in their sizes; this applies particularly to middle-aged women.

Some garments are often sold by size measured only in one dimension, causing problems which the consumer feels could be overcome by using two or more parameters, eg chest measurement and sleeve length.

Sizing, it appears, is often inconsistent from one range of garments to another. This is extremely irritating to the consumer, and many allege that they have deferred purchases or even not made them at all because of this inconsistency.

Sizing is less critical for knitted garments.

Consumer loyalty to retail outlets

Consumers have a fairly well developed loyalty to retail outlets, the effects of which may well become more important in the next decade. Such loyalty makes no significant difference to the size of the market, but it does limit the effectiveness of independent marketing efforts by the garment (or fibre) manufacturer. We believe manufacturers' brands could most effectively be promoted by recognising the retail outlet loyalty and working with it. Luxury knitwear may be an exception.

Limitations of brand advertising

Fibre and manufacturer brand loyalty and awareness appear to be relatively low. This is significant because—together with the other factors restraining consumer demand—it indicates that heavier advertising and promotion would not significantly increase the total demand, although individual manufacturers may increase their market share through advertising.

We doubt whether brand loyalties can be affected sufficiently to justify large increases in advertising. It appears that consumers, when shopping for clothes, tend first to select an outlet or a short list of outlets. Then size is specified, followed by appearance factors—style, colour, fabric design—and price. Only then are brand labels looked at, and very often only for washing instructions.

Considerable confusion exists in consumers' minds over fibre brands, despite heavy and sustained advertising by the man-made fibre producers.

It appears that advertising by fibre producers and garment manufacturers may be more effective at 'selling in' to retailers than in creating consumer demand.

There is a feeling among many consumers that the industry often tries a little too hard to dictate fashions. We think that consumers may react against this, which could further reduce the effectiveness of brand advertising in certain cases.

ADDITIONAL FACTORS

Increasing leisure

We forecast a much greater interest in leisure activities on the part of a wider section of the population during the next ten years. The emphasis is likely to move away from spectator pastimes to those where active participation is required. This implies the possibility of marketing more 'special purpose' garments. It might be fruitful to examine the American market where there are more types of garment available than there are in Britain. Predominantly the additional garments are leisure wear.

On the other hand, our consumer attitude surveys suggested that many people continue to find it acceptable to wear the same clothes for many of their leisure activities as they do for work. This attitude may inhibit the growth in demand for clothing solely for leisure. Nevertheless, there will be a steady but not dramatic growth in expenditure on leisure wear during the period under review. Leisure wear is, of course, a small proportion of all clothing.

There is a trend away from team games and towards individual leisure activities. Trousers, slacks and knitwear should benefit most from this trend, together with a whole range of specialised garments such as golf jackets, ski jackets and trousers, anoraks for climbing and sailing, car coats and duffle coats for a growing range of outdoor activities. Most of these garments require special features in fabric or making-up, such as waterproofing, stretch, zip-fasteners, and detachable or fold-away hoods. The consumer will become more discriminating and demanding about all his clothing, but particularly about specialised garments such as these.

Growth in travel and holidays

Growth in travel and holidays, particularly overseas, will continue and probably, with the advent of the jumbo jet, at a faster rate than in the past. The growth in business travel is likely to influence the market for men's outerwear in favour of lighter fabrics and easy-care finishes. The growth in holiday travel will help to spread the demand for lighter fabrics to a wider spectrum of the population, and will continue to stimulate growth in the demand for leisure garments, particularly trousers and slacks, knitwear, dresses, beachwear and sportswear.

Improved communications

The introduction of colour television should benefit the markets for those garments which are best able to incorporate fabric colour and design. But the improvements in communications will also have a significant effect, at an indirect level, by creating greater awareness and readier acceptance of social changes and fashion trends.

The development of a 'personal style'

The consumer attitude research suggested that people tended to develop a 'personal style' which transcends fashion changes and which changes only very slowly. Thus a woman may be a 'twin-set type' and a man a 'sports coat type', and fashion changes only induce minor variations on the particular person's basic theme. This personal style is closely related to the occupation and general way of life of the consumer.

We think consumers' independence from the dictates of fashion may increase, with more people adopting a style which they feel suits them in their particular circumstances than retaining the basic style. This implies that there may be an opportunity for increased sales of matching garments and accessories; the trend towards complete outfitting is clearly closely related.

The seasonal pattern of consumer purchasing

The seasonal nature of trade in many women's wear garments is undoubtedly well-known in the clothing industry. It is obviously an important factor for manufacturers, especially where fashions change from one season to another. The present pattern of seasonal purchasing for clothes, which we expect to continue, is as follows:

January to March is generally a quiet season, particularly for dresses, children's knitwear, nightdresses, underwear and waistslips.

April to September accounts for the bulk of demand for blouses and trousers.

October to December is a time of significantly heavier demand for knitwear, coats, nightdresses and slips.

Demand for corsetry, bras, suits, shirts and rainwear is fairly evenly spread throughout the year.

Demand for men's wear is less seasonal, though there are peaks around Easter, Whitsun and November.

We do not foresee any major changes in the existing pattern, although there is a slight tendency to bring forward the retailing season for some garments.

Changes in the pattern of employment

The trend from 'blue-collar' to 'white-collar' employment can be expected to continue and to exert a moderate growth effect on men's outerwear. The gradual nature of this type of change can be illustrated by a recent forecast that 'white-collar' employment will increase from nearly 40 per cent of total employment in 1968 to over 50 per cent by the 1980's. This forecast was provided in confidence by an authoritative source. It represents a compound growth rate of about 2 per cent per year, and the net effect of this on the size of the market for suits and shirts will probably not be more than an increase of 1 per cent per year.

The growth in central heating and private transport

There will be continued growth both in central heating and private car ownership, but we expect their effects to be on the nature of clothing rather than on market size for any particular garment; they will reinforce other tendencies towards lighter and more casual clothing, including knitted garments.

Increased central heating and car ownership have both allowed clothing to move away from the protective function towards more decorative and comfortable lines. Fabrics in overcoats, jackets and suits are tending to become lighter. Styles, particularly in overcoats and rainwear, are becoming much more casual, and a new garment, 'the car coat', has emerged. Underwear has become very largely cotton or synthetic.

Chapter 4 Changes in distribution

INTRODUCTION

The conclusions in this section of the report are based on interviews with leading UK manufacturers, retailers and wholesalers and on published information about developments in retailing. The changes occurring in the wholesale and retail trades are not likely to have much effect on the level of demand for clothing, but rather on the quality and variety of garments which are made available to the consumer. The policies adopted by the retailer are also important in that they affect the choice of an appropriate marketing strategy by the garment manufacturer.

As in Chapter 3, our discussion is of the UK market; but once again it is reasonable to anticipate analogous, though not identical, features in other economically developed markets.

MAIN FACTORS

Increased concentration of buying power

Multiples and variety chains have been increasing their share of clothing sales over a long period. In 1950 it was 27 per cent and by 1966 it had increased to 48 per cent. We expect this trend to continue but more slowly than in the past, giving multiples and variety chains 53 per cent of clothing sales by 1973 and 55 per cent by 1978.

The strength of the multiples and variety chain stores is in marketing standard garments in limited ranges and in offering good value for money. Multiple tailors appear to combine limited style ranges with a wide selection of fabrics.

The implications for the hosiery and knitwear industry are that, as the big retailing groups enlarge their market share, manufacturers will increasingly have to develop closer relationships with them and accept the disciplines which such relationships demand. While close collaboration with the retail groups involves some loss of commercial independence, it brings with it the benefit of greater security and stability. In order to compete with the chain stores and multiples, independents will probably rely more and more on wholesale buying groups, while the department stores and smaller multiples will move further towards centralised buying.

Specification buying

The development of specification buying is closely related to the growing importance of the major retailing groups. It has affected all the essential aspects of garment manufacturing from fabric specification to quality control and delivery schedules. It has had the effect of some reduction in variety through standardisation, but has also improved quality and value for money, by stabilising, or even reducing, retail prices.

Marks & Spencer have pioneered specification buying of clothing on a large scale, and others have followed. Thus a larger proportion of the industry is becoming involved in the manufacture and supply of garments under carefully controlled conditions.

Some major retailers feel there is a shortage of capacity at the required quality levels. At least one major group has, apparently successfully, applied specification buying to garment manufacturers in Hong Kong. This suggests that the industry could be very vulnerable to the policy decisions of some major retailing groups if more manufacturers in low-cost countries become capable of achieving the production control and delivery standards of the retailers' UK suppliers.

Polarisation of outlets between chains and multiples, and boutiques

The continuing increase in the share of clothing sales held by chains and multiples (see first paragraph) will be mainly at the expense of medium size, independent outlets. The small specialist shops typified by 'boutiques' and, to some extnet, by the shop within a shop, will also increase their share, we believe. Manufacturers may find that the polarisation at the retail end of the trade forces them to choose to supply either low or medium priced standard lines to the large groups, or fashion and specialist lines to small outlets, boutiques, and department stores. This polarisation will obviously affect some garment groups more than others.

ADDITIONAL FACTORS

Trading-up

We expect that many sectors of the retail clothing trade will continue to trade-up in terms of quality, and, much less so, in terms of price. Rising living standards, continuing fashion consciousness, and retailers' need to cover their increasing costs, will sustain the process of trading up. Manufacturers will have to become more involved in product and method improvements, as well as fashion changes. Those who take the initiative in this will obviously benefit.

Specialised outlets

We anticipate that specialised outlets will grow in importance, both reflecting new types and new uses of garments and stimulating demand for them. Examples are shops specialising in:

beach, holiday, cruise attire

ski clothing and equipment

trouser bars

sports equipment and clothing

sailing equipment and clothing

Shops-within-shops are another example: these restrict the scope of competing manufacturers.

Mail order and postal shopping

Mail order trading is the fastest growing sector of the retail trade with a growth of some 12½ per cent per year since 1961. (This growth rate refers to mail order as a whole, but clothing and household textiles account for a large share of all mail order business.) We expect this overall growth to slow down in the next 5 years, although the expansion of the large mail order groups will continue to be quite rapid. Retailers have been moving into mail order trading, and mail order firms have in some cases acquired clothing manufacturers. Both trends will probably continue.

The proportion of trade going through mail order houses in 1968 and forecast for 1973 is shown in Table 4.1.

Table 4.1 Trade in clothing through mail order houses, 1968 and 1973

Garment category	*Percentage of all clothing sales*	
	1968	1973
Men's outerwear	4–6	5–7
Women's outerwear	8–10	9–10
Men's innerwear	6–9	8–10
Women's innerwear	7–9	8–9
Children's wear	4–6	5–7

The growth in importance of retailer brands

Retailer brands have been growing in importance, and we forecast that they will continue to do so (see page 31). The growth of retailer brands affects the hosiery and knitwear industry in two ways:

Some chains and multiple groups, notably Marks & Spencer, only stock their own brands; these outlets are therefore closed to manufacturers' brands.

Other multiples stock manufacturers' brands, but their own brands are increasing their sales at the expense of the manufacturers' brands. This tends to diminish the market available to the manufacturers of independent brands.

Developments in wholesaling

It is estimated that about 10 per cent of all clothing sales go through wholesalers. We were not able to get very much evidence about distribution costs and their trends, but we think these costs may increase substantially, and so produce a revival in the fortunes of the wholesale trade, whose role has been diminishing. The recent interest taken by Courtaulds in wholesaling supports this view. Wholesalers can also perform these useful functions for the industry, though they do not always do so: stocking unusual sizes and novelty lines, providing the finance for stocks, and bearing the risk involved in breaking bulk orders to manufacturers down into small orders for retailers. Wholesalers, if they are to survive, will have to be more effective in providing such services for manufacturers; this goes far beyond mere order-taking, and will be equally important for large general wholesalers and specialised wholesalers. A stronger wholesale trade is thus very much in the interests of the hosiery and knitwear industry, particularly of the small firms who comprise the greater part of the industry.

Supermarkets

Supermarkets are moving into hosiery and knitwear retailing at the lower end of the price range. We expect considerable growth of sales by supermarkets, particularly of hose, underwear, lingerie, trousers and knitwear.

Trend to complete outfitting

This trend was shown in our consumer attitude research to be particularly strong among young people. We expect it to continue. Manufacturers of clothing may benefit from the trend by working closely with retailers in the marketing of co-ordinated ranges of clothing.

The standard of staff in retail outlets

Staff problems and the lack of training facilities in the retail trade affect all clothing manufacturers, because consumers may remain unaware of product advantages and improvements if retail staff cannot describe and explain them. Manufacturers' sales staff can help by making positive efforts to see that retail sales staff understand and appreciate the products they are selling.

The trend away from high street shopping

Two trends are developing in a limited way:

out-of-town shopping centres

suburban shopping centres

We do not think either trend will have an important effect on the distribution of hosiery and knitwear in the UK within the next decade.

Chapter 5 Industrial changes affecting the UK hosiery and knitwear industry—structure, productivity, costs and prices

INTRODUCTION

Increased concentration of buying power among retailers has been matched by some important changes taking place in the fibre and textile industries. Growing competition amongst fibre producers, as the numbers of fibres and producers have increased, is leading to attempts at marketing right through to the final consumer. In the textile sector, the increased penetration of synthetics, the introduction of new fibres, the rapid development of knitting and the evolution of a more market-orientated approach have accompanied, and in some cases have prompted, important structural changes in the traditional industries in this sector. Obviously, these changes are having, and will continue to have, a marked impact on the hosiery and knitwear industry. In this chapter we have described what effect we think they will have on the industry.

The opinions contained in this chapter have been derived from discussions with many of the leading figures in the fibre, hosiery and knitwear, textile and garment industries, supported by the background knowledge gained by us in previous studies.

THE FIBRE AND TEXTILE INDUSTRIES

The effect of changes

Much greater co-operation will be required between fabric suppliers and garment manufacturers in production and marketing. For example, new fibres and fabrics sometimes require changes in making-up techniques; and large-volume fabric production requires more systematic production planning and co-ordination of marketing by garment manufacturers.

The greater size and strength of the main fibre groups will put them in an increasingly stronger position vis-à-vis hosiery and knitwear manufacturers. The potential effect on the independence of the hosiery and knitwear industry is made all the more significant by the growth of the large multiple retail groups (*cf.*, Chapter 4). But this need not necessarily be disadvantageous to hosiery and knitwear manufacturers; the marketing efforts of large supplying groups, properly deployed, can help them considerably.

Structure

In order to appreciate the philosophy behind the methods used by the fibre producers and large integrated groups to promote a range of fibres, it is necessary to look briefly at the structure of the industry.

Chart 4 illustrates the structure of the textile industry in relation to the hosiery and knitwear industry. From the point of view of the man-made fibre producers, the industry is divided into a number of strata which will be referred to as primary customers, secondary customers, etc.

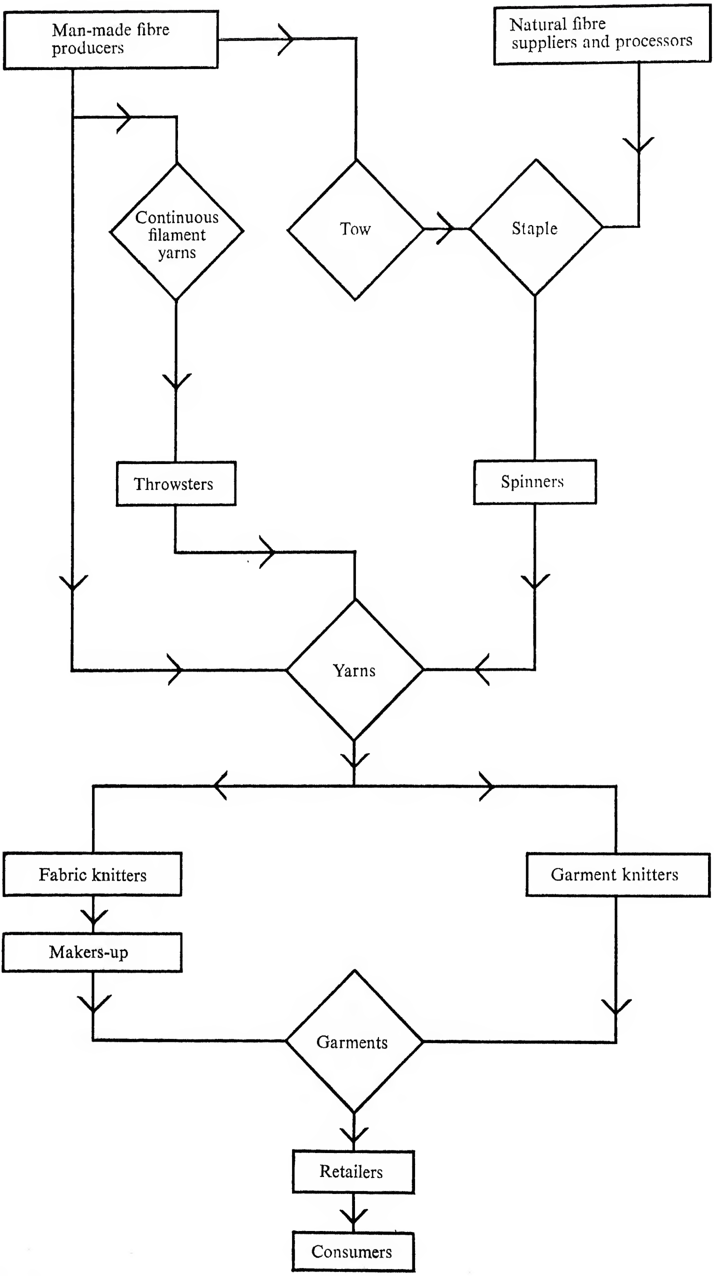
Primary customers:	Those to whom flat continuous filament yarn is sold direct—throwsters.
Secondary customers:	Those to whom textured continuous filament yarn is sold—predominantly knitters; also makers-up.
Tertiary customers:	One stage further removed from the original source of purchase—mainly retailers, who in their turn sell the final product in the form of a garment to the consumer.

A similar, but somewhat more complicated, chain of users is involved in the processing of both man-made staple fibres and natural fibres, and the chart does in fact over-simplify the route. Nevertheless, although the structure of the chain may, in some circumstances, be an over-simplification, basically the method of promotion is essentially the same.

Aims

In a general sense, the aim of the fibre producers is to preserve the identity of their fibres by promoting at all stages through the chain from the primary stage onwards, in order that full advantage may be taken of national advertising campaigns. The man-made fibre producers and the textile industry have sought more and more to promote their products to the final consumer; the effect has been for more hosiery and knitwear manufacturers to promote their garments in conjunction with the fibre interests; this trend will undoubtedly continue, placing greater demands on the marketing skills of management in general.

Chart 4 Structure of the textile industry in relation to the hosiery and knitwear industry



It was pointed out on page 32 that such advertising may have more effect on the retailer than the consumer. We would add that this is more true of independent retailers than of the large multiples, some of whom remain sceptical about the value of the fibre firms' efforts.

Forward integration

A number of fibre and textile groups have been extending their interests into the hosiery and knitwear industry. In those sectors of the industry where forward integration has taken place, and particularly in lingerie, women's hose, knitwear and fabrics, independent manufacturers have been put at something of a disadvantage. The large groups can provide their own garment-manufacturing subsidiaries with some important advantages.

access to capital
access to scarce management skills and techniques
co-ordination and planning of production and marketing
more effective marketing

The next decade can be expected to see some continuation of the process of forward integration of textile groups into the hosiery and knitwear industry. The advantages described above will tend to increase in importance, and expansion of export business should also be easier to achieve with the support of the financial, managerial and marketing resources of large groups.

The garment sectors most likely to see further forward integration by the fibre and textile industries include knitwear (especially made from double jersey), men's trousers, hosiery, women's fashion wear and possibly men's nightwear.

There has also been a degree of forward integration by the textile industry into distribution. This could be an important factor in arresting the decline of wholesaling, where Courtaulds are thought to control about 10 per cent of the wholesale trade (see page 35).

Forward integration by textile groups into retail distribution is mainly limited to English Calico and Coats Patons, and we expect this to remain on a fairly small scale for the industry as a whole.

Trend to concentration in the hosiery and knitwear industry

There has been a slight trend towards larger groupings in the hosiery and knitwear industry; we expect this trend to continue. To some extent this has been a defensive move inspired by the concentration in the textile industry on one hand and the increasing dominance of the large multiple retail groups on the other. Independent firms in the hosiery and knitwear industry will feel increasingly subject to pressures from both sides, but this trend also reflects a growing awareness of the advantages of association with a larger group.

Shortage of skilled labour in the hosiery and knitwear industry may tend to cause manufacturing units to remain small and dispersed, although central specialised departments may be set up to co-ordinate financial control, production and marketing. In addition, small units are often more flexible, and so are able to adjust more quickly to fashion changes.

Fabric manufacturing trends

As can be seen in Appendix 5, considerable technical advances are expected in knitting. Table 5.1 shows the past and projected shares for the major manufacturing processes:

Table 5.1 UK apparel fabric manufacturing trends, 1955–78

	Percentage share by area of fabric					
	1955	1960	1965	1968	1973	1978
Weft knitting	22	21	25	27	31	34
Warp knitting	6	10	17	20	26	33
Weaving	72	69	58	53	43	33

Source: Textile Month and AIC estimates

COSTS, PRODUCTIVITY AND PRICES

This study is primarily concerned with the impact which social and economic changes are likely to have on the demand for hosiery and knitwear. It is impossible to make judgements about the likely future demand for hosiery and knitwear without making assumptions about the price of garments, both relative to other goods and relative to imported garments. Our forecasts have assumed that the industry's prices will not rise faster than the general price level for consumer goods and services; indeed we believe that there could be some relative price reductions, just as there have been in recent years. This is an important assumption because our consumer attitude research has suggested that if clothing prices do increase relative to other goods, demand for clothing will be inhibited. Moreover, the import threat is mainly in those sectors and those garments which are extremely price sensitive. Price increases in these sectors would probably result in large increases in imports, which, combined with a static or perhaps declining home market, must mean that many firms would be unable to survive.

The making-up sector of this industry is labour intensive, and we expect the cost of labour to rise quite sharply in this country over the next decade (see page 43). It follows, therefore, that to achieve price stability and maintain profitability, the industry must obtain further substantial improvements in its labour productivity. Moreover, in our discussions with manufacturers it became apparent that many firms found that their production was limited by a shortage of skilled sewing machinists and knitting mechanics. The industry's apparent inability to retain and recruit sufficient labour of the required quality is probably the result of a whole complex of factors. On the other hand, it seems likely that, in order to remedy the shortage of labour, earnings in the hosiery and knitwear industry must increase faster than the national average. This reinforces the need for the industry to make substantial productivity advances.

Thus, to evaluate likely price increases, we would need to consider the industry's costs, its productivity potential, and likely technological improvements. A detailed examination of all these factors was beyond the scope of our enquiry; but our research in the industry has enabled us to form views about likely developments in general terms. Technological matters are discussed in Appendix 5; productivity, costs and prices form the subject of the remainder of this chapter.

POTENTIAL PRODUCTIVITY INCREASES

Knitting processes

The fabric manufacturing process is far more capital intensive than is the making-up sector of the industry, and productivity (output per unit of labour) is, therefore, more related to machine utilisation and efficiency than to labour utilisation as such.

We believe that, while there is considerable scope for improvement in some sectors of the industry, in others knitters have already reached a very high level of machine utilisation and efficiency.

Table 5.2 Potential productivity increases in knitting processes, 1968–78

Product, group or process	*Potential increase in productivity* approximate %	*Source*
Fully fashioned knitwear	30–35	New machines
Fisherman knit etc	10–20	New machines
Seamless stockings	up to 10*	†
Half hose and socks	10–20	Machine and labour utilisation
Circular knit fabric (excluding Jersey fabric)	20–30	Shift working: machine and labour utilisation: new machines
Jersey fabric	up to 10+ ? 15	*†

Notes:

*Increases due to minor machinery improvements and general tightening up of working conditions and machine utilisation.

†The potential increase in productivity shown for jersey fabric knitting is based on a normal working week of 130 hours. Present agreements with trade unions do not permit 168 hour working. If such agreements were amended in the future, the potential increase in productivity could be a further 15 per cent or so.

The figures do not cover ancillary processes such as winding, warping, toe-closing etc. These may offer better scope for increased productivity than do the basic knitting processes, and we recommend a study of this.

Our analysis takes account only of existing types of machines and prototypes. Clearly, the figures may be affected by new machinery not known publicly at the moment. There is no reason to doubt that new machinery will be invented in the future as in the past. Such progress tends to come in a series of steps, rather than continuously.

The figures in Table 5.2 are approximate and conservative. They apply to firms in general. For individual firms the position may well be different. The figures are based on the average potential increases over the industry for the next ten years but are probably on the conservative side. Of course, in the case of some manufacturers, (for example of circular knit fabric) there is considerable scope for increasing machine utilisation by working three shifts instead of two and sometimes even one.

Of the 20–30 per cent increase indicated for circular knit fabric, we would expect about one third to be the result of increased shift working, one third to come from better machine utilisation and one third from machinery replacement. The increase in productivity of 25–35 per cent quoted for the new fully fashioned garment machines will result from new machinery; there is very little scope for improvements on existing machinery.

In the case of half hose and socks, the increase will be obtained in roughly equal proportions from better machine utilisation and better labour utilisation, as knitters' work loads are brought into line with other sectors of the trade. It is not uncommon for knitters to be manning only 8 machines in cases where it is feasible to load up to 20.

Similarly, in circular knit fabric the number of machines per knitter could in many situations be increased from 6 to 10, without any danger of reducing machine utilisation or efficiency.

At the moment the majority of seamless hose knitting machines are single, twin, four or eight feed machines. Development work is progressing on machines of up to twelve feeders.

The single and twin machines are slow production machines, but have the ability to produce a shaped heel stocking and a wide variety of fabrics. The four feed and upward machines are fast producers which can only make a tubular stocking, and have limited fabric capabilities.

Any forecast of future increases of productivity for seamless stocking knitting are therefore complicated by the distribution of machine types within the industry. There are two extreme alternatives:

The present distribution of machinery may continue. In this case any productivity increases would come about from reorganisation of working conditions and a small improvement in machine efficiencies. This would give an increase over 10 years of up to 10 per cent.

There may be a major swing towards the multi-feed machines. This would limit the number of 'quality' stockings available and also reduce the fabric type potentials. However, it would have a radical effect on productivity and could give up to 50 per cent increase over the 10 year period.

Without a very detailed forecast of the market requirements over the next ten years, it is impossible to provide a reliable productivity increase estimate, but we believe that up to 10 per cent is the more likely estimate.

Making-up processes

Table 5.3 shows the approximate potential increases in productivity available from the introduction of improved methods and equipment and the extensive use of work study.

Table 5.3 Potential productivity increases in making-up processes, 1968–78

Product group	*Potential increases in productivity* approximate %
Men's knitted other outerwear (not suits)	40
Men's knitted innerwear	40
Women's knitwear and knitted outerwear (cut and sewn)	30
Women's knitwear and knitted outerwear (Jersey)	40
Women's knitted innerwear	30
Children's knitted outerwear	40

Note:
These figures are very approximate and conservative. In the time available, we have not been able to be more precise, though there is clearly a range of possible values for each, depending on conditions generally and in individual firms.
We have excluded men's knitted outerwear in the form of suits, because this is as yet at the embryo stage.

We have shown women's outerwear in two categories, because we believe there is significantly less scope for increase in productivity in the cut and sewn sector than the jersey sector.

The benefits of increases in productivity in making-up may be twofold: a reduction in the unit labour cost per garment, and an increase in the volume of output from the same labour force. Both benefits are essential for the industry.

Labour availability

Whilst there is always a shortage of skilled knitters and knitting mechanics, the problem is to train sufficient men to keep pace with the rapidly increasing demand for knitted fabrics and therefore knitting machines.

On the making-up side of the industry, in common with the clothing industry, there is a serious turnover and shortage of sewing machinists.

In the knitwear section of the industry there is a much higher proportion of overlocking. This is an easier operation to learn than flat bed machining, and is relatively well paid. In spite of this, labour shortage is still an acute problem and must be resolved by improving the training facilities, the working conditions and amenities and the image of the industry.

FUTURE PRICES

We have already stressed the need for relative price stability and we believe that in general this will be achieved. Indeed, we have evidence that in some sectors prices should continue to decrease in relation to all consumer goods and services.

The factors which should contribute to these reductions are:

Importance of productivity increases

Increase in productivity result in labour cost reductions to a greater or lesser degree depending on the extent to which operatives are awarded a share of the benefits.

Any increases in earnings necessary to attract and retain labour must be balanced by increases in productivity.

Earnings

A comparison of the growth of the weekly earnings of women in all manufacturing, clothing and footwear and hosiery and knitwear in the period between 1960 and 1968 is given in Table 5.4.

Table 5.4 Growth of women's earnings in the UK, 1960–68

	Women's weekly earnings		
Month, Year	*Manufacturing*	*Clothing and footwear*	*Hosiery and knitwear*
	£ s d	£ s d	£ s d
April, 1960	7 5 2	7 0 5	7 6 5
	Growth index (April 1960=100)		
April, 1961	105	105	107
April, 1962	108	108	112
April, 1963	113	112	114
April, 1964	121	122	126
April, 1965	127	126	129
April, 1966	137	138	142
April, 1967	141	143	142
April, 1968	151	151	155

Source:
Based on *Statistics on Incomes, Prices, Employment and Production*, Ministry of Labour/Department of Employment and Productivity.

Table 5.4 shows that, contrary to general belief, earnings in the hosiery and knitwear industry have not been below those in industry as a whole. In fact, over the period in question, the hosiery and knitwear industry has been 3 to 4 points ahead of manufacturing industry as a whole.

In spite of this, we believe the high degree of skill required of sewing machinists demands commensurate earnings, and, therefore, if the recruitment problem is to be eased, earnings must continue to rise more rapidly in the hosiery and knitwear industry than in industry generally. This is particularly true of flat bed machinists' earnings.

Consequently, we would expect earnings not only for these operatives but for the industry as a whole to increase on average by 30 per cent over the period 1968–73 and by 71 per cent over the period 1968–78.

This should not, of course, apply to those regions, notably Leicester, where sewing machinists enjoy earnings which are already of the order of 50 per cent above the average for the industry. There are manufacturers in Leicester and also some in Nottingham, who—due to anomalous piece rates and shortage of skilled machinists—pay overlockers £25 to £30 per week. In other areas, where there is no predominance of knitting, earnings tend to be more in line with those paid by the clothing industry. These comments are based on the experience of AIC over a limited number of manufacturers. A full regional analysis of rates and earnings would require a complete survey and might be most illuminating. Equal pay for women is another factor (see below).

Costs of raw materials

In the long term, man-made fibre prices will tend to fall. In the immediate future, better control of yarn during knitting and dyeing, coupled with improved utilisation in the making-up processes, should yield an overall reduction in material costs of some 3 per cent.

Competition

A sharpening of competition, especially from imports, and a greater awareness of the need for skilled marketing will increase competition in the industry and act as a restraining influence on prices.

We would expect that this relatively simple analysis, which is based on our experience in the industry and on data analysis in our recent study of the clothing industry, would be substantiated by a more refined study which we recommend should be undertaken.

COST AND PRICE TRENDS, 1968-78

In Tables 5.5 to 5.12 we have shown how manufacturers' costs and prices are likely to change over the period 1968 to 1978.

These tables show the forecast effect of various assumptions, which we have marked A, B and C:

A=Material prices will remain stable; and earnings in the industry will remain above the national average, and will increase by 30 per cent by 1973 and 71 per cent by 1978. The average national increases are likely to be about half this rate.

B=A+Materials cost reduction: 1 per cent in knitting, due to improved yarn utilisation; +2 per cent in making-up only due to improved fabric utilisation; this applies only to underwear, Table 5.10.

C=A+B+an increase in earnings in addition to A above (20 per cent by 1973 and 40 per cent by 1978) to allow for the implementation of equal pay for women.

Manpower is assumed to be constant throughout.

Assumption C reflects our view of what is most likely to happen over the next 10 years.

The top parts of these tables show the forecast effect of each assumption if present levels of productivity continue. The bottom parts of the tables show the effects of the increases in labour productivity (as indicated in Tables 5.2 and 5.3) under each of the three assumptions. In calculating these effects, we have assumed the lower figure in the ranges indicated in Table 5.2, which explains why there is no bottom part to Table 5.7.

In all these tables 'Other costs and profit margins' are maintained throughout at the same percentage of 'Manufacturers' sales price' as in 1968. This applies also to dyeing and finishing.

Table 5.12 summarises the forecast effects on manufacturers' sales prices shown under the various assumptions in Tables 5.5 to 5.11.

The product groups covered by this analysis are given in the tables as follows:

Fully fashioned knitwear	Table 5.5	Non-luxury garments
	Table 5.6	Luxury garments
Hose	Table 5.7	Women's seamless
	Table 5.8	Half hose and socks
Underwear	Table 5.9	Fabric manufacture
	Table 5.10	Making-up—men's —women's
Circular knitted (excluding jersey) fabric	Table 5.11	

It should be noted that in considering the effect of increases in productivity and increases in wage rates in the hosiery and knitwear industry, we have envisaged the gradual replacement of piece work systems by scientific work measurement.

The figures in Tables 5.5 to 5.12 represent general forecasts for each sector as a whole, and it is appreciated that individual manufacturers' costs and prices may change very differently. The forecasts provide an indication of the likely effect of future productivity and earnings increases on prices.

Comparing hosiery and knitwear with other commodities, we forecast that the general level of retail prices will rise by about 17 per cent between 1968 and 1973, and by about 35 per cent between 1968 and 1978*. These increases are very similar to those forecast in assumption 'C' for hosiery and knitwear, bearing in mind the errors inherent in this type of forecast.

This stability in future prices of hosiery and knitwear relative to prices of other products, means that expected price changes alone will not cause the pattern of expenditure on hosiery and knitwear to alter.

But if our forecast is wrong, and hosiery and knitwear prices do increase relative to other products, then the result would without doubt be to decrease the share of the UK market taken by UK manufacturers, and to accelerate the flow of imports.

In these tables, we give general forecasts; the position for individual firms will certainly vary. The 1968 cost structure data is taken from a reliable but confidential source.

Table 5.5 Cost and price trends for fully fashioned non-luxury knitwear, 1968–78

	A			*B*		*C*	
	Stable material prices			*A+increase in materials utilisation*		*A+B+equal pay for women*	
	1968 %	1973 %	1978 %	1973 %	1978 %	1973 %	1978 %
At existing levels of productivity							
Yarn	35·7	35·7	35·7	35·3	35·3	35·3	35·3
Dyeing and finishing	9·0	10·2	11·4	10·2	11·9	10·2	11·9
Direct labour	20·6	26·8	35·2	26·8	35·2	32·2	49·2
Other costs and profit margins	34·7	38·7	44·2	38·3	43·6	41·3	51·2
Manufacturer's sales price	100·0	111·4	127·0	110·6	126·0	119·0	147·6
Effect of increase in labour productivity							
Yarn	35·7	35·7	35·7	35·3	35·3	35·3	35·3
Dyeing and finishing	9·0	10·2	11·9	10·2	11·9	10·2	11·9
Direct labour	20·6	23·3	27·1	23·3	27·1	28·0	37·9
Other costs and profit margins	34·7	36·8	39·7	36·4	39·6	39·0	44·9
Manufacturer's sales price	100·0	106·0	114·4	105·2	113·9	112·5	130·0

Notes on basis of calculation:

30 per cent increase in productivity contributing fully to cost reduction. Half labour cost reduction by 1973, rest by 1978.

We have used the same assumption about productivity for the luxury and non-luxury industries, for lack of more definitive estimates. We appreciate that the potential may be different for each sector.

****Note:***

The only major retail price movements which we expect to be different from general trends are in 'housing' and 'alcoholic drink' (upwards) and in 'food' (downwards).

Table 5.6 Cost and price trends for fully fashioned luxury knitwear, 1968–78

	A			*B*		*C*	
	Stable material prices			*A+increase in materials utilisation*		*A+B+equal pay for women*	
	1968 %	1973 %	1978 %	1973 %	1978 %	1973 %	1978 %
At existing levels of productivity							
Yarn	32·0	32·0	32·0	31·6	31·6	31·6	31·6
Dyeing and finishing	8·0	9·0	10·4	9·0	10·4	9·0	10·4
Direct labour	18·5	24·0	31·5	24·0	31·5	28·8	44·1
Other costs and profit margins	41·5	46·0	52·1	46·4	52·5	49·6	60·9
Manufacturer's sales price	100·0	111·0	126·0	111·0	126·0	119·0	147·0
Effect of increase in labour productivity							
Yarn	32·0	32·0	32·0	31·6	31·6	31·6	31·6
Dyeing and finishing	8·0	9·0	10·4	9·0	10·4	9·0	10·4
Direct labour	18·5	20·8	24·4	20·8	24·4	25·0	34·0
Other costs and profit margins	41·5	43·8	47·2	43·6	47·1	46·9	54·0
Manufacturer's sales price	100·0	105·6	114·0	105·0	113·5	112·5	130·0

Notes on basis of calculation:

30 per cent increase in productivity contributing fully to cost reduction. Half labour cost reduction by 1973, rest by 1978.

We have used the same assumption about productivity for the luxury and non-luxury industries, for lack of more definitive estimates; we appreciate that the potential may be different for each sector.

Table 5.7 Cost and price trends for women's seamless stockings, 1968–78

	A			*B*		*C*	
	Stable material prices			*A+increase in materials utilisation*		*A+B+equal pay for women*	
	1968 %	1973 %	1978 %	1973 %	1978 %	1973 %	1978 %
At existing levels of productivity							
Yarn	30·2	30·2	30·2	29·9	29·9	29·9	29·9
Dyeing, etc.	13·6	15·4	17·9	15·4	17·9	15·4	17·9
Direct labour	18·0	23·4	30·6	23·4	30·6	28·1	42·9
Other costs and profit margins	38·2	42·5	48·8	42·5	48·6	45·3	56·1
Manufacturer's sales price	100·0	111·5	127·5	111·2	127·0	118·7	146·8

Table 5.8 Cost and price trends for half hose and socks, 1968–78

	A			*B*		*C*	
	Stable material prices			*A+increase in materials utilisation*		*A+B+equal pay for women*	
	1968 %	1973 %	1978 %	1973 %	1978 %	1973 %	1978 %
At existing levels of productivity							
Yarn	40·6	40·6	40·6	39·2	39·2	39·2	39·2
Dyeing, etc.	9·8	11·1	12·9	11·1	12·9	11·1	12·9
Direct labour	15·7	20·4	26·8	20·4	26·8	24·5	37·6
Other costs and profit margins	33·9	36·9	40·8	36·3	40·1	38·2	45·8
Manufacturer's sales price	100·0	109·0	121·1	107·0	119·0	113·0	135·5
Effect of increase in labour of productivity							
Yarn	40·6	40·6	40·6	39·2	39·2	39·2	39·2
Dyeing, etc.	9·8	11·1	12·9	11·1	12·9	11·1	12·9
Direct labour	15·7	19·4	24·4	19·4	24·4	23·3	33·2
Other costs and profit margins	33·9	36·4	39·9	35·6	39·0	37·9	43·7
Manufacturer's sales price	100·0	107·5	117·8	105·3	115·5	111·5	129·0

Notes on basis of calculation:
10 per cent increase in productivity contributing fully to cost reduction. Half labour cost reduction by 1973, rest by 1978.

Table 5.9 Cost and price trends for underwear fabric manufacture, 1968–78

	A			*B*		*C*	
	Stable material prices			*A+Increase in materials utilisation*		*A+B+equal pay for women*	
	1968 %	1973 %	1978 %	1973 %	1978 %	1973 %	1978 %
At existing levels of productivity							
Yarn	76·5	76·50	76·5	75·74	75·74	75·74	75·74
Dyeing and finishing	10·1	12·90	15·1	12·90	15·10	12·90	15·10
Direct labour	4·9	6·35	8·4	6·36	8·38	7·63	11·70
Other costs and profit margins	8·5	8·80	8·9	8·85	9·22	8·93	9·50
Manufacturer's sales price	100·0	104·55	108·9	103·85	108·54	105·2	112·04
Effect of increase in labour productivity							
Yarn	76·5	76·50	76·50	75·74	75·74	75·74	75·74
Dyeing and finishing	10·1	12·90	15·10	12·90	15·10	12·90	15·10
Direct labour	4·9	5·78	6·96	5·78	6·96	6·94	9·75
Other costs and profit margins	8·5	8·82	8·94	8·75	9·10	8·90	9·41
Manufacturer's sales price	100·0	104·00	107·50	103·17	106·90	104·48	110·00

Notes on basis of calculation:
20% increase in productivity contributing fully to cost reduction. Half labour cost reduction, by 1973, rest by 1978.

Table 5.10 Costs and price trends for underwear making-up, 1968–78

	A			*B*		*C*		
	Stable material prices			*A+increase in materials utilisation*		*A+B+equal pay for women*		*Notes*
	1968 %	1973 %	1978 %	1973 %	1978 %	1973 %	1978 %	
At existing levels of productivity								1
Materials	53·7	56·20	58·50	55·00	57·30	55·00	57·30	
Direct labour	12·1	15·75	20·70	15·75	20·70	18·90	29·00	
Other costs and profit margins	34·2	37·05	41·10	36·75	40·40	38·20	44·80	
Manufacturer's sales price	100·0	109·00	120·30	107·50	118·40	112·10	131·10	
Effect of increase in labour productivity								
Men's underwear								2
Materials	53·7	55·80	57·70	54·70	56·50	54·70	56·50	
Direct labour	12·1	13·10	14·80	13·10	14·80	15·75	20·70	
Other costs and profit margins	34·2	35·70	37·60	35·30	36·90	36·55	40·30	
Manufacturer's sales price	100·0	104·60	110·10	103·10	108·20	107·00	117·50	
Women's underwear								3
Materials	53·7	55·80	57·70	54·70	56·50	54·70	56·50	
Direct labour	12·1	14·00	16·60	14·00	16·60	16·80	23·20	
Other costs and profit margins	34·2	36·20	38·80	35·80	38·20	37·20	41·60	
Manufacturer's sales price	100·0	106·0	113·10	104·50	111·30	108·70	121·30	

Notes on basis of calculation:

1 The materials costs in this table are based on Table 5.9.
There is a 2 per cent increase in material utilisation.

2 40 per cent increase in productivity contributing fully to cost reduction.
Half labour cost reduction by 1973, rest by 1978.

3 25 per cent increase in productivity contributing fully to cost reduction.
Half labour cost reduction by 1973, rest by 1978.

Table 5.11 Cost and price trends for circular knit fabric, 1968–78

	A *Stable material prices*			*B* *A+increase in materials utilisation*		*C* *A+B+equal pay for women*	
	1968	1973	1978	1973	1978	1973	1978
	%	%	%	%	%	%	%
At existing levels of productivity							
Yarn	49·5	49·5	49·5	49·0	49·0	49·0	49·0
Direct labour	16·5	21·4	28·2	21·4	28·2	25·6	39·5
Other costs and profit margins	34·0	36·3	40·3	36·1	39·8	38·6	45·5
Manufacturer's sales price	100·0	107·2	118·0	106·5	117·0	113·2	134·0
Effect of increase in labour productivity							
Yarn	49·5	49·5	49·5	49·0	49·0	49·0	49·0
Direct labour	16·5	19·5	23·5	19·5	23·5	23·4	32·9
Other costs and profit margins	34·0	35·5	37·8	35·5	37·5	37·6	42·1
Manufacturer's sales price	100·0	104·5	110·8	104·0	110·0	110·0	124·0

Notes on basis of calculation:
Excludes jersey fabric.
20 per cent increase in productivity contributing fully to cost reduction.
Half labour cost reduction by 1973, rest by 1978.

Table 5.12 Summary of percentage changes from 1968 in manufacturers' selling prices as a result of changes in wage rates, labour productivity and materials prices, 1973 and 1978

	Fully fashioned knitwear non-luxury		*Fully fashioned knitwear luxury*		*Women's seamless stockings*		*Socks half hose*		*Underwear fabric manufacture*		*Men's underwear making-up*		*Women's underwear making-up*		*Circular knit fabric (excluding Jersey)*	
	1973 %	1978 %	1973 %	1978 %	1973 %	1978 %	1973 %	1978 %	1973 %	1978 %	1973 %	1978 %	1973 %	1978 %	1973 %	1978 %
At existing levels of productivity																
A Stable materials prices	11·4	27·0	11·0	26·0	11·5	27·5	9·0	21·1	4·6	8·9	9·0	20·3	9·0	20·3	7·2	18·0
B A+improved materials utilisation	10·6	26·0	11·0	26·0	11·2	27·0	7·0	19·0	4·0	8·4	7·5	18·4	7·5	18·4	6·5	17·0
C A+B+equal pay for women	19·0	47·6	19·0	47·0	18·7	46·8	13·0	35·5	5·2	12·0	12·1	31·1	12·1	31·1	13·2	34·0
Effect of increase in labour productivity																
A Stable materials prices	6·0	14·4	5·6	14·0			7·5	17·8	4·0	7·5	4·6	10·1	6·0	13·1	4·5	10·8
B A+improved materials utilisation	5·2	13·8	5·0	13·5			5·3	15·5	3·2	6·9	3·1	8·2	4·5	11·3	4·0	10·0
C A+B+equal pay for women	12·5	30·0	12·5	30·0			11·5	29·0	4·5	10·0	7·0	17·5	8·7	21·3	10·0	24·0

Source:
Based on Tables 5.5 to 5.11

Section II Product monographs

In this Section we discuss in greater detail the present position and future prospects of six groups of garments and of knitted fabrics. These are:

Knitwear

Hose

Women's and girls' knitted outerwear

Men's and boys' knitted outerwear

Women's and girls' knitted innerwear

Men's and boys' knitted innerwear

Knitted fabrics for apparel, upholstery, household and other uses

At the beginning of each chapter will be found tables summarising the market prospects for the products in question. Because we are looking at prospects from the point of view of the potential market, we give figures of UK demand for the products in question. In the first two groups, knitwear and hose, these figures also represent our forecasts of the UK sales of the UK hosiery and knitwear industry. For the other five groups, however, the hosiery and knitwear industry mainly supplies knitted fabric to others outside the industry, who then make it up into garments.

In these cases, therefore, the UK demand figures represent UK sales of finished garments, not the hosiery and knitwear industry's sales alone.

Naturally, wherever possible, we then proceed to discuss the industry's own sales—including, where appropriate, sales of fabric used in those garments.

In the same way, the export forecasts represent total UK exports of the products in question, not merely those of the hosiery and knitwear industry itself.

Chapter 6 Knitwear

This monograph deals with both fully fashioned and cut and sewn knitwear, i.e. sweaters, jumpers, cardigans and twin-sets. We have discussed the market in terms of 'men's and boys' knitwear' and 'women's and girls' knitwear', although where it is important, as in the fibre content, we have isolated the children's market because it differs fundamentally from the adult market. Also, where relevant, we differentiate between the 'Hawick' or luxury trade and the rest.

SUMMARY OF MARKET PROSPECTS—MEN'S AND BOYS' KNITWEAR

We forecast that the UK market for men's and boys' knitwear will grow by 2½ per cent to 3 per cent per annum over the next decade. UK demand will increase by 31 per cent, but UK manufacturers' total sales, including exports, will increase by 40 per cent. We forecast a substantial increase in exports, so that by 1978 they should represent some 44 per cent of UK manufacturers' total sales, compared with 26 per cent in 1968. The UK market will come under increasing competition from imports, which we expect will almost treble over the next decade. This represents an increase in imports' share of the home market from 16 per cent in 1968 to 33 per cent in 1978. Table 6.1 sets out the 1968 position and our forecasts for 1973 and 1978.

In terms of volume, we expect to see a gradual fall in the high proportion of garments made of wool for men's knitwear. We forecast that the present 70 per cent share held by wool will fall to 50 per cent in 1978. On the other hand, for boys' knitwear, with synthetics penetration already very high at 80 per cent, we do not forecast any significant change.

Table 6.1 Market prospects for men's and boys' knitwear

		AIC Most likely forecasts	
	1968	1973	1978
UK market data			
Consumer expenditure (£m at retail prices)	75	85	98
Demand at manufacturers' sales prices (£m)	44	50	58
Annual growth rate		2·5%	3%
Growth index	100	113	131
Imports and exports			
Import forecasts (£m cif)	7	12	19
Export forecasts (£m fob)	13	22	31
% of UK market imported	16%	24%	33%
% of UK production exported	26%	37%	44%
Prospects for UK manufacturers			
UK manufacturers' home and export sales (£m)	50	60	70

SUMMARY OF MARKET PROSPECTS—WOMEN'S AND GIRLS' KNITWEAR

We forecast that the women's and girls' knitwear market will grow by 4 to 5 per cent per annum over the next decade. UK demand will increase by 55 per cent. Exports are expected to grow by more than 60 per cent over the next decade, and will represent about 19 per cent of home production compared to 17 per cent in 1968. Imports are expected to grow more rapidly—from 13 per cent of the UK market in 1968 to 21 per cent in 1978. Table 6.2 illustrates the 1968 position and our forecasts for 1973 and 1978.

In terms of volume, we forecast a continuing slow decline in the share that wool has of this market. In women's knitwear, the share held by wool is forecast to fall from 20 per cent in 1968 to 15 per cent in 1978; the corresponding figures for the girls' market are 11 per cent to 10 per cent respectively.

Table 6.2 Market prospects for women's and girls' knitwear

			AIC most likely forecasts		
	1968		1973		1978
UK market data					
Consumer expenditure (£m at retail prices)	105		128		163
Demand at manufacturers' sales prices (£m)	62		75		96
Annual growth rate		4%		5%	
Growth index	100		122		155
Imports and exports					
Import forecasts (£m cif)	8		12		20
Export forecasts (£m fob)	11		14		18
% of UK market imported	13%		16%		21%
% of UK production exported	17%		18%		19%
Prospects for UK manufacturers					
UK manufacturers' home and export sales (£m)	65		77		94

UK MARKET ANALYSIS

Price Structure

Table 6.3 indicates the very wide distribution of knitwear prices. The most important causes of variation are the type of fibre used, the pattern and design of the garment and whether the garments are branded or not.

Table 6.3 UK market for knitwear by price, 1968

Retail price per garment	*Men's* %	*Women's* %
Up to 19s 11d	8	6
20s to 29s 11d	7	26
30s to 39s 11d	17	28
40s to 49s 11d	20	20
50s to 59s 11d	13	9
60s to 69s 11d	13	8
70s to 79s 11d	9	
80s and over	13	3

Source: ICI Fibres Ltd.

The price difference between man-made fibres and wool has tended to increase over the years. We think that this trend is likely to continue.

Because of the considerable difference between garments at the two ends of the price range, we have attempted to estimate the size of the 'Hawick' type luxury trade in fully fashioned garments made of wool and other natural fibres. These garments do not, of course, all originate in the geographical area of Hawick.

In the UK market, we have defined as luxury knitwear:

Men's knitwear retailing at more than £4.
Women's knitwear retailing at more than £3 10s.

On the basis of these assumptions, the luxury trade accounts for 18 per cent by volume of the men's knitwear market (excluding boys'). This is equivalent to 32 per cent by value; ie 4 million garments, with an average retail price in the region of £5 per garment.

Similarly, the luxury trade in women's knitwear (excluding girls') is approximately 5 per cent by volume, which is equivalent to 14 per cent by value, ie 3·5 million garments, with an average retail price of around £4 per garment.

It is impossible to define children's luxury knitwear in terms of unit price because of the variety of sizes. However, on the assumption that the pattern of children's knitwear is similar to that of women's, there would be some 0·8 million garments, having a value of about £1¼ million at manufacturers' sales prices, in the luxury category.

In addition to these UK sales, there is also a considerable export market. In 1968, exports of women's fully fashioned knitwear made of wool and other natural fibres amounted to 2·3 million garments valued at £5·3 million (fob) according to HM Customs and Excise, whose figures exclude exports by parcel post. Taking these into account, we estimate that total exports in 1968 amounted to 3·2 million garments valued at £7·5 million (fob).

In 1968, exports of men's fully fashioned knitwear made of wool and other natural fibres amounted to 2·8 million garments valued at £6·4 million (fob) according to HM Customs and Excise. Again, taking parcel post into account, we estimate that total exports in 1968 amounted to 4·0 million garments valued at £9·0 million (fob). For the purposes of this analysis, we have assumed that these fully fashioned garments account for all the UK's luxury knitwear exports.

It is difficult to estimate the proportion of exports of children's knitwear which is in the luxury class, because international trade statistics are not sufficiently detailed. However, based on men's and women's knitwear, we might expect about two thirds of exports to be in this category, ie about 0·4 million garments, valued at £0·6 million (fob).

The UK imports garments falling into the luxury class as defined above from such countries as Italy, Eire and Norway. On the basis of the import statistics given in Tables 6·9 and 6·10, we have estimated the 1968 value of these imports to have been £0·8 million for men's knitwear (0·4 million garments) and £0·9 million for women's knitwear (0·5 million garments).

On the assumption that all these fully fashioned exports fall into the luxury class, and also that imports in this category are negligible, total UK sales of luxury garments in 1968 were as shown in Table 6.4.

Table 6.4 UK manufacturers' sales of luxury knitwear, 1968

	UK sales		*Export sales*		*Imports*		*UK production*	
	Volume millions of garments	*Value* £m (*manufacturers' sales prices*)	*Volume* millions of garments	*Value* £m (*fob*)	*Volume* millions of garments	*Value* £m	*Volume* millions of garments	*Value* £m
Men's	4·0	13	4·0	9·0	0·4	0·8	6·8	19·7
Women's	3·5	8	3·2	7·5	0·5	0·9	7·0	16·1
Children's	0·8	1·2	0·4	0·6			1·2	1·8
Total	8·3	22·2	7·6	17·1	0·9	1·7	15·0	37·6

Source: AIC estimates based on official statistics.

As we forecast in the 'Fibre Content' section, there will be a modest decrease in the proportion of wool used and, therefore, a decrease in the market share held by producers of luxury knitwear.

Distribution

Knitwear is distributed through a wide range of retail outlets—variety chain stores and multiples account for about one third and one half respectively of men's and women's knitwear sales. Independent retailers (approximately 20 per cent and 30 per cent of men's and women's wear) and departmental stores, which have approximately 10 per cent of sales, are the only other significant outlet groups.

This distribution is similar to that of clothing as a whole, and is characterised by:

outlets selling garments at keen price levels, but with only a limited range of style;

outlets selling a variety of brands and styles, but at somewhat higher prices;

outlets (eg departmental stores) which sell both cheaper basic style 'own brand' garments and more expensive individually advertised brands.

The brand leader in knitwear is St Michael (Marks & Spencer), with Prova (British Home Stores) and Keynote (Littlewoods) figuring prominently. These three, together with other multiples and variety chains have a very large share of the total market, with an even larger share of the mass market.

The most significant factors affecting the distribution of knitwear are:

the trend towards concentration of buying power and, arising from this, the development of specification buying in relation to the non-luxury knitwear trade;

the gradual polarisation of outlets into either large multiple low-cost outlets or small specialised fashion outlets.

The implications for the non-luxury knitwear industry are that retail traders will become fewer and increasingly powerful vis-à-vis manufacturers. On the other hand, the increasing importance of the boutiques will increase the number of outlets available to the luxury knitwear industry.

The leading fibre producers put much effort into encouraging the sale of garments at the consumer level, for example, Monsanto with its 'Wear Dated' scheme and ICI with its consumer promotion activities.

Such promotion by fibre producers imposes certain responsibilities on the manufacturers using the various fibres. Finished garments have to adhere to rather stricter quality requirements, which are checked from time to time by the fibre producers. The combined effect of the pressures from the fibre supplier and the specification buyer gives the manufacturer opportunities to produce and sell in volume merchandise which is made to recognised quality standards. Such garments are readily accepted by consumers, and—because of the large volumes arising from this type of business—can be very profitable to the efficient manufacturer.

Consumer profile

Young men (15–29) account for over half of all men's knitwear purchases in terms of both volume and value. Purchases of women's knitwear are spread more evenly throughout the age range, but nevertheless young women account for more than 40 per cent of purchases. Young people are, therefore, important purchasers of knitwear, particularly as they represent an increasing sector of the population. The detailed position is given in Table 6.5.

Table 6.5 UK purchases of knitwear by age group, 1968

			Knitwear purchases		
	Age group years	*Age group as % of population*	*Volume* %	*Expenditure* %	*% Population Growth 1968–78*
Men's	15–19	11	22	22	+12·8
	20–29	18	28	31	+3·7
	30–39	18	15	16	+12·0
	40–49	17	15	14	−7·3
	50–59	17	10	10	+2·0
	60+	19	10	7	+8·6
Women's	15–19	10	18	19	+12·3
	20–29	16	23	23	+4·4
	30–39	15	17	18	+13·9
	40–49	17	17	17	−11·9
	50–59	17	14	13	−1·8
	60+	25	11	10	+7·3

Source: ICI Fibres Ltd

Fibre content

There are significant differences in the use of the various fibres in men's, women's and children's knitwear. The share of women's knitwear held by wool and rarer natural fibres has fallen dramatically from 57 per cent in 1962 to 20 per cent in 1968. In children's knitwear the drop in garments made of natural fibres has been even steeper, falling from 54 per cent in 1962 to 13 per cent in 1968. On the other hand, wool and rarer natural fibres have retained their share of the men's market at between 70 and 80 per cent over the same period—see Table 6.6.

The switch from natural to man-made fibres for both women's and children's knitwear is, we believe, now almost complete, and we forecast that these markets will stabilise at 15 per cent wool for women and 11 per cent wool for children. We consider that the preference shown by men for wool will be eroded more slowly, with man-made fibres making relatively modest inroads by increasing their share from 28 per cent in 1968 to about 50 per cent in 1978.

Table 6.6 UK consumption of knitwear by fibre type, 1962–78
m of garments

Year	*Fibre type*	*Men's*	*Women's*	*Children's*	*Total*
1962	Wool etc	14	24	13	51
	Man-made	2	15	6	23
	Cotton	2	3	5	10
	Total	18	42	24	84
1968	Wool etc	15	14	3	32
	Man-made	6	54	18	78
	Cotton	*	2	2	4
	Total	21	70	23	114
1973	Wool, etc	15	16	3	34
	Man-made	8	70	20	98
	Cotton	*	2	2	4
	Total	23	88	25	136
1978	Wool etc	14	17	3	34
	Man-made	14	96	22	132
	Cotton	*	3	2	5
	Total	28	116	27	171

Source:
1962 and 1968 trade estimates
1973 and 1978 AIC forecasts
Notes:
*less=than 1m
'Wool etc.' means wool and other natural fibres

THE UK's IMPORTS AND EXPORTS OF KNITWEAR

Knitwear imports

Imports of men's and boys' knitwear have more than doubled since 1965 to a total of £6·7 million in 1968 (see Table 6.7).

Imports of women's and girls' knitwear declined from £7·3 million in 1963 to £4·8 million in 1965, before recovering to £7·5 million in 1968. The 1965 decline in imports was due to the imposition of the 15 per cent surcharge in October 1964. This effect was reinforced by the replacement of the more expensive garments made of wool by relatively cheaper garments of man-made fibre.

Table 6.7 UK imports of knitwear by value, 1963–68

	Men's and boys' £m	*Women's and girls'* £m
1963	2·9	7·3
1964	2·9	6·5
1965	3·1	4·8
1966	4·2	5·2
1967	4·8	6·3
1968	6·7	7·5

Source: HM Customs and Excise

As shown in Table 6.8, Hong Kong is the major supplier of women's and girls' knitwear, providing 46 per cent of the imports in terms of both volume and value. Hong Kong has an even greater share of the imports of knitwear made of wool—78 per cent by volume, 68 per cent by value. In 1968 54 per cent of imports of women's and girls' knitwear were made of wool compared to 81 per cent in 1963. The growing imports of man-made fibre garments have largely originated from Asian low cost countries and from Japan, which now accounts for over 20 per cent of such garments.

Hong Kong is even more dominant as a source of men's and boys' knitwear, supplying almost two thirds of all imports, and approximately 80 per cent of woollen knitwear imports. Portugal is the major supplier of knitwear made from man-made fibres, with a 50 per cent share of such imports. Table 6·9 gives full details.

Table 6.8 UK imports women's and girls' knitwear by principal suppliers, 1968

	Wool		*Other material*		*Total*		*Share of Total*	
Country	*Volume* millions of garments	*Value* £m	*Volume* millions of garments	*Value* £m	*Volume* millions of garments	*Value* £m	*Volume* %	*Value* %
Hong Kong	3·25	2·78	1·18	0·64	4·43	3·42	46	46
Italy	0·35	0·48	0·72	0·69	1·07	1·17	11	16
Japan	0·01	0·01	1·43	0·71	1·44	0·72	15	10
Eire	0·15	0·21	0·36	0·34	0·51	0·55	5	7
Israel	0·30	0·36	0·01	0·01	0·31	0·37	3	5
Total (All Countries)	4·18	4·06	5·52	3·42	9·70	7·48	100	100

Source: HM Customs and Excise

Table 6.9 UK imports men's and boys' knitwear by principal suppliers, 1968

	Wool		*Other material*		*Total*		*Share of total*	
Country	*Volume* millions of garments	*Value* £m	*Volume* millions of garments	*Value* £m	*Volume* millions of garments	*Value* £m	*Volume* %	*Value* %
Hong Kong	4·15	4·27	0·14	0·08	4·29	4·35	63	66
Eire	0·30	0·53	0·18	0·16	0·48	0·69	7	11
Portugal	0·04	0·03	1·08	0·55	1·12	0·58	17	9
Italy	0·08	0·12	0·18	0·20	0·26	0·32	4	5
Israel	0·11	0·14	0·02	0·02	0·13	0·16	2	2
Norway	0·07	0·12	*	*	0·07	0·12	1	2
Total (All countries)	4·90	5·45	1·90	1·12	6·80	6·66	100	100

Source: HM Customs and Excise
Note: *=negligible

Knitwear exports

The export value of women's knitwear has risen by nearly 60 per cent between 1963 and 1968. The growth in exports of men's knitwear has been much faster, at 150 per cent over the same period.

Table 6.10 UK exports of knitwear by value, 1963–68

	Men's £m	*Women's* £m	*Children's* £m
1963	3·4	4·7	0·6
1964	4·0	4·7	0·6
1965	4·5	5·2	0·7
1966	5·3	5·8	0·5
1967	6·0	6·2	0·5
1968	8·6	7·4	0·6

Source: HM Customs and Excise

Table 6.10 excludes exports by parcel post, which are estimated to be about 40 per cent of the above figures. Taking these into account, we estimate that total knitwear exports for 1968 were:

Men's and boys' knitwear: £13 million
Women's and girls' knitwear: £11 million

26 per cent of men's and boys' knitwear production by value was exported in 1968, compared with the much lower figure of 17 per cent of women's and girls' knitwear.

Tables 6.11 and 6.12 analyse the export figures in Table 6.10 by material and type of garment.

Table 6.11 UK exports of men's knitwear by type of fibre, 1963–68

	Wool							
	Fully fashioned		*Cut and sewn*		*Other fibre*		*Total*	
Year	*Volume* millions of garments	*Value* £m	*Volume* millions of garments	*Value* £m	*Volume* millions of garments	*Value* £m	*Volume* millions of garments	*Value* £m
1963	1·3	2·8	0·3	0·5	0·1	0·1	1·7	3·4
1964	1·5	3·4	0·3	0·5	0·2	0·2	2·0	4·0
1965	1·6	3·6	0·4	0·6	0·3	0·3	2·3	4·5
1966	1·9	4·2	0·5	0·9	0·2	0·3	2·6	5·3
1967	2·0	4·6	0·5	0·8	0·5	0·7	3·0	6·0
1968	2·8	6·4	0·8	1·3	0·8	1·0	4·4	8·6

Source: HM Customs and Excise

Table 6.12 UK exports of women's knitwear by type of fibre, 1963–68

	Wool							
	Fully fashioned		*Cut and sewn*		*Other fibre*		*Total*	
Year	*Volume* millions of garments	*Value* £m	*Volume* millions of garments	*Value* £m	*Volume* millions of garments	*Value* £m	*Volume* millions of garments	*Value* £m
1963	1·8	4·0	0·3	0·4	0·4	0·3	2·5	4·7
1964	1·7	4·1	0·2	0·3	0·4	0·4	2·3	4·7
1965	1·9	4·4	0·3	0·4	0·4	0·4	2·6	5·2
1966	2·0	4·8	0·3	0·4	0·5	0·6	2·8	5·8
1967	1·9	4·4	0·3	0·5	1·1	1·3	3·3	6·2
1968	2·3	5·3	0·4	0·8	1·2	1·4	3·9	7·4

Source: HM Customs and Excise

The greatest strength of the UK knitwear industry lies in its ability to produce high quality fully fashioned garments made of wool. This is reflected in the high proportion of these luxury garments which are exported. In 1968 these accounted for 72 per cent by value of all women's knitwear exports and 75 per cent by value of all men's knitwear exports. Since 1967 exports of knitwear made from man-made fibres, although still relatively small, have been increasing rapidly. This reflects the increasing ability of the industry to produce good quality non-luxury garments at competitive prices. This is a most encouraging sign, because this hitherto neglected market has major growth potential.

Table 6.13 shows that the USA is the UK's largest customer, taking 31 per cent of all knitwear exports and 47 per cent of men's knitwear exports in 1968. However, the growth in exports has come through the development of the European market, particularly EFTA. In the EEC too, performance has been above the average for clothing as a whole, which is indicative of the potential available if the UK were to join the Common Market.

Table 6.13 UK exports of knitwear by principal customers, 1968

	Men's		*Women's*		*Total*	
Country	*Value* £m	*Export* share %	*Value* £m	*Export* share %	*Value* £m	*Export* share %
USA	4·03	47	1·01	14	5·04	31
Switzerland	0·62	7	0·89	12	1·51	9
France	0·47	5	0·53	7	1·00	6
Sweden	0·26	3	0·74	10	1·00	6
Canada	0·42	5	0·53	7	0·95	6
W. Germany	0·35	4	0·36	5	0·71	4
USSR	0·23	3	0·35	5	0·58	4
Denmark	0·18	2	0·38	5	0·56	3
Total (all countries)	8·63	100	7·44	100	16·07	100

Source: HM Customs and Excise

Forecasts of the UK's imports and exports of knitwear

The UK's international trade in men's and boys' knitwear will become increasingly important. We forecast that the share that imports take of the UK market will increase from 16 per cent in 1968 to 33 per cent in 1978, and that the share that exports take of UK production will increase from 26 per cent in 1968 to 44 per cent in 1978. The effect of this on the industry in the next decade will be to favour the export orientated manufacturers of higher quality knitwear at the expense of the cheaper end of the trade.

The opportunities for exporting men's and boys' knitwear are excellent. They are greater than for women's and girls' because more men's and boys' knitwear falls into the high quality category of garments made of wool.

Imports of women's and girls' knitwear are likely to grow faster than over the last five years. We expect their share of the UK market to rise from 13 per cent in 1968 to 21 per cent in 1978. Exports will also increase, but less quickly, so that they will account for 19 per cent of UK production in 1978, compared with 17 per cent in 1968.

Our most likely forecasts have already been shown in Tables 6.1 and 6.2

Table 6.14 gives not only the most likely forecasts, but also lower and upper forecasts. The basis of these alternative forecasts is explained in Appendix 3.

Table 6.15 similarly gives 'pessimistic' and 'optimistic' forecasts of the UK's trade balance, as well as our most likely forecast, (for explanation of 'Trade balance' see Appendix 3).

Table 6.14 Forecasts of UK imports and exports of knitwear

		Men's & boys' £m		*Women's & Girls'* £m		*Total* £m	
		Exports	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*
1968		13	7	11	8	24	15
1973	Lower	18	10	12	8	30	18
	Most likely	22	12	14	12	36	24
	Upper	26	17	16	19	42	36
1978	Lower	21	16	14	9	35	25
	Most likely	31	19	18	20	49	39
	Upper	40	29	22	32	62	61

Table 6.15 Forecast of UK trade balance in knitwear

	1968 £m	1973 £m	1978 £m
Men's and boys'			
Actual	+6		
Pessimistic		+ 5	+ 2
Most likely		+10	+12
Optimistic		+13	+18
Women's and girls'			
Actual	+3		
Pessimistic		− 3	−10
Most likely		+ 2	− 2
Optimistic		+ 5	+ 6
Total			
Actual	+9		
Pessimistic		+ 3	− 8
Most likely		+12	+10
Optimistic		+18	+24

Chapter 7 Hose

This monograph discusses hose by dividing the market into two sectors, namely:

'Women's tights and stockings' ie: women's full length stockings, tights and panti-hose.

'Other Hose' ie: all other men's, women's and children's socks and stockings.

Panti-hose have a separately knitted, shaped-to-fit brief section; tights do not. For the sake of brevity, we shall refer to both tights and panti-hose as 'tights', except where otherwise specified.

SUMMARY OF MARKET PROSPECTS—WOMEN'S TIGHTS AND STOCKINGS

Expenditure on women's tights and stockings is forecast to increase by about 70 per cent in the next five years. This growth stems from the rapid substitution of tights for stockings, which will largely have been completed by 1970. During the next five year period up to 1978, the growth rate will have moderated to 1 per cent per annum—see Table 7.1.

We forecast a substantial increase in both imports and exports. The imports will consist largely of low cost tights, whereas the exports will be of good quality and fashionable tights and support stockings.

By 1978, we expect that the proportion of UK production exported will have risen to 8 per cent by value from 3 per cent in 1968. These forecasts arise from the fact that UK manufacturers are engaged in a process of rapid 'trading up', which provides increased opportunities for importers of low-priced garments, and, conversely, provides opportunities for UK manufacturers to export higher quality garments.

Table 7.1 Market prospects for women's tights and stockings

		AIC *most likely forecasts*	
	1968	1973	1978
UK market data			
Consumer expenditure (£m at retail prices)	128	218	230
Demand at manufacturers' sales prices (£m)	75	128	135
Annual growth rate		11%	1%
Growth index	100	171	180
Imports and exports			
Import forecasts (£m cif)	6	10	12
Export forecasts (£m fob)	2	7	11
% of UK market imported	8%	8%	9%
% of UK production exported	3%	6%	8%
Prospects for UK manufacturers			
UK manufacturers' home and export sales (£m)	71	125	134

SUMMARY OF MARKET PROSPECTS—OTHER HOSE

The market for other hose will grow slowly by 1 per cent per annum over the next decade. Little change is expected to occur in either imports or exports. In fact, little change is expected in what has been a very stable market since the introduction of synthetics in the late fifties. Table 7.2 sets out the 1968 position and our forecasts for 1973 and 1978, see also Table 7.5.

Table 7.2 Market prospects for other hose

		AIC *most likely forecasts*	
	1968	1973	1978
UK market data			
Consumer expenditure (£m at retail prices)	36	37	39
Demand at manufacturers' sales prices (£m)	21	22	23
Annual growth rate		1%	1%
Growth index	100	105	110
Imports and exports			
Import forecasts (£m cif)	*	1	1
Export forecasts (£m fob)	3	3	4
% of UK market imported	2%	5%	4%
% of UK production exported	13%	13%	15%
Prospects for UK manufacturers			
UK manufacturers' home and export sales (£m)	24	24	26

Note:
*Less than £½m.

Basis of forecasts of UK demand for hose

1968 saw a rapid increase in the proportion of tights sold as against stockings. Thus by the end of the year, sales were running at annual rates very different from those pertaining to the year as a whole. Opinions vary widely, and Table 7.3 reflects our own estimate of the position.

Table 7.3 UK sales of women's tights and stockings, 1968

	Value £m (*at manufacturers' selling prices*)		*Volume* millions of pairs	
	1968 total	*Annual rate end 1968*	*1968 total*	*Annual rate end 1968*
Tights	31	70	126	280
Stockings	44	30	396	280
Total	75	100	522	560

The swing away from stockings has been more drastic in the south than in the rest of the country, giving a market share of 80 per cent for tights in some of the big London stores.

We forecast a shift overall to 80 per cent tights by volume, which should be completed by 1970. The market will then continue to grow in normal fashion at 1 per cent per annum. In the transitional stage, there will be a rapid increase in consumer expenditure due to both the increased cost of tights and their lower durability. Durability, however, is expected to improve and our forecasts reflect this too. Taking these factors into account, we have made the forecasts in Table 7.4.

Table 7.4 Forecasts of UK demand for women's tights and stockings

	1968		1973		1978	
	Volume millions of pairs	*Value* £m	*Volume* millions of pairs	*Value* £m	*Volume* millions of pairs	*Value* £m
Tights	126	31	480	115	504	121
Stockings	396	44	120	13	126	14
Total	522	75	600	128	630	135

Table 7.5 sets out our forecasts of UK demand for all other hose.

Table 7.5 Forecasts of UK demand for all other hose.

	1968		1973		1978	
	Volume millions of pairs	*Value* £m	*Volume* millions of pairs	*Value* £m	*Volume* millions of pairs	*Value* £m
Men's	82	13	84	13	86	14
Women's	5	1	6	1	6	1
Children's	64	7	69	8	76	8
Total	151	21	159	22	168	23

NB: rounded to nearest £m.

UK MARKET ANALYSIS

Price structure

Table 7.6 UK market for women's tights and stockings by price, 1968

Tights		*Stockings*	
Retail price per pair	%	*Retail price per pair*	%
Up to 5s 11d	13	Up to 1s 11d	5
6s to 6s 11d	9	2s to 2s 11d	26
7s to 7s 11d	14	3s to 3s 11d	31
8s to 8s 11d	19	4s to 4s 11d	22
9s to 9s 11d	28	5s to 5s 11d	5
10s to 11s 11d	8	6s to 6s 11d	7
Above 12s	9	7s to 8s 11d	2
		Above 9s 0d	2

Source: ICI Fibres Ltd

Because of the rapid change from stockings to tights, the retail price distribution has undergone a major change in the last two years (see Table 7.6). Prior to 1968, the price structure of the market was relatively stable. Our estimates (in Table 7.3) for the end of 1968 indicate that 50 per cent of sales by volume were taken by tights. In this rapidly changing situation, the 1968 price distribution in Table 7.6 is already out of date.

Between 1967 and 1968, the average retail price paid for stockings and tights rose from 3s 11d to 5s 8d, which reflects the increasing proportion of tights selling at an average price of 8s. 6d. We

Table 7.7 UK market for other hose by price, 1967–68

	Men's	*Boys'*		*Girls'*			
Retail price per pair	%	*Calf length* %	*Knee length* %	*Tights* %	*Stockings and stocking tights* %	*Ankle length socks* %	*Knee length socks* %
Up to 3s 11d	46	46	21	1	58	89	27
4s to 4s 11d	12	29	28	1	10	7	28
5s to 5s 11d	14	11	23	1	1	1	30
6s to 6s 11d	11	5	11	3	5	*	9
7s to 7s 11d	8	4	7	2	2	*	3
8s to 9s 11d	6	3	3	18	11	1	*
10s and more	3	2	6	74	13	*	3

Source:
Courtaulds Ltd
AIC estimates
*Negligible

expect tights to decrease in price. However, the average price of tights and stockings together may rise further. due to the switch from stockings to tights and also the trend for the more expensive panti-hose to substitute for other under-garments.

The retail price distribution for 'other hose' has been relatively static since the introduction of synthetics in the late fifties. We do not anticipate any significant change in the situation (outlined in Table 7.7) in the next decade.

Distribution

In 1968 variety chains sold over a quarter of women's tights and stockings, and a third of men's socks. Independents were of similar importance. Mail order sold 14 per cent of women's tights.

The pattern of distribution of women's tights and stockings is changing considerably. The advent of 'one-size' stockings has been a main cause of this. In the days when numerous sizes in many colours had to be stocked, grocers, supermarkets and many other retailers fought shy of hose. Now, with stretch yarn, three colours (light, medium and dark) in one size make a complete range. Thus a new element has come into the business—the rack merchandiser. Supplies are 'bought', ordered and paid for regularly, typically at fortnightly intervals, so that the filling up of racks is an operation which gives the manufacturer a useful cash flow, yet frees the retailer from much administrative work and from all stock problems.

In the case of small retailers, who may be anything from tobacconists and newsagents to drapers or grocers, racks are filled and the retailer charged weekly only on what he has sold. Thus he is not only rid of the stock problems but also of having to lay out capital in advance. Furthermore, there is no element of risk.

We consider that this method of distributing women's tights and stockings will become more widespread, and will bring in its wake added advantages to the consumer. Increased competition will have the effect of producing keener prices as well as the obvious benefit to the consumer of more outlets and easier purchasing.

Retailers' brands, such as St Michael (Marks & Spencer), Prova (British Home Stores) and Keynote (Littlewoods) have become so dominant that other brands have been limited in the number and quality of the traditional outlets they could obtain. This is another factor behind the changing methods of distribution.

In the packaging of tights, there has been a recent trend away from the familiar stiffened transparent envelopes used for stockings towards new packs which are made of stiffer protective material, with expensive colour designs. This increased emphasis on packaging will continue as turnover increases in the more expensive garments.

Consumer profile

Table 7.8 gives the most recent available distribution of hose purchases by age. We think, however, that purchases of tights and stockings both by value and by volume have recently become much more concentrated in the lower age groups. This is because tights, which are more expensive than stockings and have a shorter life, are worn more by younger women than by their elders.

Many women in the higher age groups have not yet been converted to the idea of wearing tights, largely because they involve a major change in underclothing. An essential feature in the design of roll-ons, for example, is that they require stockings to prevent the garment from rolling upwards as well as the more basic need of suspenders to prevent the stocking from falling down. Therefore, in order that these ladies may have the opportunity of seeing if tights are to their taste, they will probably have to purchase an alternative to their roll-on or corset—for example, a panti-girdle. In the long term, this resistance to tights in the higher age groups is likely to be eroded.

Sizing is a real problem for many consumers; the change to tights aggravates it. Consumer attitude research shows that when a particular retail shop helps a shopper to overcome the problem, loyalty to that shop, and to a lesser extent to the brand too, is generated. (See Appendix 4, page 160).

The present predominance of young purchasers offers scope to manufacturers of coloured and patterned tights. Similar remarks apply to manufacturers of knee length hose. Such fashions could be spread to other age groups, though they could equally well prove to be very short-lived.

Table 7.8 UK purchases of hose by age group, 1968

			Hose purchases		*% Population growth 1968–78*
	Age group years	*UK population* %	*Tights* *Volume* %	*Stockings*	
Women's tights and stockings	15–19	10	36	10	+12·3
	20–29	16	36	19	+ 4·4
	30–39	15	12	20	+13·9
	40–49	17	8	21	−11·9
	50–59	17	6	18	− 1·8
	60+	25	2	12	+ 7·3
Men's socks	15–19	11	14		+12·8
	20–29	18	25		+ 3·7
	30–39	18	19		+12·0
	40–49	17	18		− 7·3
	50–59	17	15		+ 2·0
	60+	19	9		+ 8·6

Source: ICI Fibres Ltd
Note: No estimates are available for categories of hose not specified.

Fibre content

Virtually only man-made fibres are used in the manufacture of women's stockings and tights. The use of elastomeric fibres will undoubtedly grow due to the increased demand for elegant support stockings and also for built-in support in the pantie element of panti-hose.

Table 7.9 UK analysis of other hose by fibre, 1968

Fibre millions of pairs	*Men's* millions of pairs	*Women's* millions of pairs	*Children's* millions of pairs
Wool	20	*	5
Man-made	61	4·5	55
Cotton	1	*	4
Total	82	5	64

Socks are one of the few products for which demand has been decreased by the use of synthetic fibres. In 1955, UK production of socks was valued at £27 million at manufacturers' selling prices and synthetic penetration was slight, running at about 2 per cent. In 1968, production value had dropped to £22 million and the penetration by synthetics had risen to almost 80 per cent. This drop, which was due to the greater durability of synthetics, occurred rapidly in the late fifties, since when the market has been stable.

We do not anticipate any further substantial change in fibre content.

THE UK's IMPORTS AND EXPORTS OF HOSE

Hose imports

Imports of women's stockings in 1968 amounted to 22·7 million pairs valued at £2 million. Trade was depressed by the 15 per cent surcharge on imports (imposed in October, 1964) and did not recover until 1967 (see Table 7.10). It is interesting to note the increase in fully fashioned stocking imports, which rose from 3 million pairs in 1964 to over 11 million pairs in 1968. This is a reverse of the home production trend and may be explained by the concentration of UK manufacturers in satisfying the demand for cheaper seamless stockings. This has allowed imported fully fashioned stockings to become more competitive, so that in 1968 imports accounted for approximately half the home market demand for this type of stocking.

Table 7.10 UK imports of women's stockings, 1964–68

Year	*Volume* millions of pairs	*Value* £m	% *Fully fashioned by volume*
1964	23·2	1·8	14
1965	7·4	0·7	23
1966	7·1	0·7	18
1967	20·0	1·9	26
1968	22·7	2·0	51

Source: HM Customs and Excise

In 1968, 88 per cent of the UK's imports of women's stockings originated in Eire and Austria (see Table 7.11) .These two countries held 82 per cent of the seamless imports and 96 per cent of the fully fashioned imports. This is an example of the effect of our special trading relations with Austria, as a partner in EFTA, and the Irish Republic. No duty is payable on imports from these countries. Austria also helps its manufacturers by granting them an 'Export Rebate'.

The import duty on nylon stockings is now 30 per cent for all countries, except the Commonwealth (who pay 90 per cent of this full rate), EFTA and Eire (duty-free). The Kennedy Round will reduce this tariff to 28½ per cent on 1 January, 1970, 26½ per cent on 1 January, 1971 and to 25 per cent on 1 January, 1972. The tariff is also expressed as a minimum duty per dozen pairs, which is currently 8s 3d. It is the duty per dozen which is important, the percentage ad valorum being nearly always lower. At the present, imports of tights are classified as 'underwear', because underwear attracts a lower rate of duty. Representations have been made to HM Customs and Excise to remedy this, but unfortunately other countries classify tights in this way.

The imports from Eire rose at the expense of those from Austria in 1968 because of devaluation and the establishment of factories in the Republic by leading British manufacturers.

Table 7.11 UK imports of women's stockings from Eire and Austria, 1964–68

	Eire			*Austria*		
Year	*Seamless* £m	*Fully fashioned* £m	*Share of all imports* %	*Seamless* £m	*Fully fashioned* £m	*Share of all imports* %
1964	0·08	0·03	4	0·39	0·18	26
1965	0·04	*	6	0·14	0·08	33
1966	0·06	*	9	0·32	0·06	58
1967	0·18	0·11	15	0·93	0·22	60
1968	0·34	0·61	48	0·68	0·12	40

Source: HM Customs and Excise
Note: * indicates value less than £5,000

The statistics collected by HM Customs and Excise do not allow us to distinguish between imports of men's, women's and children's 'other hose'. The volume of these imports fluctuates widely from year to year with no underlying trend (see Table 7.12). With a value of £0·36 million in 1968, they accounted for only 2 per cent of UK demand.

In 1968, imports of 'other hose' from Portugal, valued at £0·19 million, accounted for more than half the total. Another major supplier, Norway, sent nearly £0·05 million worth of hose, made from natural fibres, mainly wool.

Table 7.12 UK imports of other hose, 1964–68

Year	*Volume* millions of pairs	*Value* £m
1964*	0·84	0·32
1965*	0·38	0·27
1966	2·82	0·23
1967	5·58	0·41
1968	3·78	0·36

Source: HM Customs and Excise
Notes:
These figures are for stockings, under-stockings, socks, ankle socks, sockettes, and the like, neither elastic nor rubberised, and excluding women's full length stockings containing more than 5 per cent by weight of man-made fibres.
*In 1964 and 1965 data for materials other than man-made fibres not available

Hose exports

The volume of exports of women's tights and stockings has been increasing steadily since 1964; and in 1968, helped by devaluation, the volume more than doubled compared with 1967.

Table 7.13 UK exports of women's tights and stockings, 1963–68

Year	*Volume* millions of pairs	*Value* £m
1963	2·8	0·39
1964	2·1	0·31
1965	2·2	0·34
1966	2·6	0·44
1967	3·2	0·59
1968	7·3	1·20

Source: HM Customs and Excise

Table 7.13 excludes exports by parcel post, which are estimated to be about 40 per cent of the above figures. Taking these into account, we estimate that the UK's total exports for 1968 were:

Value:	£1·7 million
Volume:	10·2 million pairs.

Table 7.14 shows that three quarters of the UK's exports of women's tights and stockings in 1968 went to four countries: Australia, Canada, Eire and the USSR. Exports of women's stockings to the Soviet Union are a recent development, having started only in 1966.

Table 7.14 UK exports of women's tights and stockings by destination, 1968

Country	*Seamless* £m	*Total value* £m
Australia	0·14	0·15
Canada	0·28	0·37
Eire	0·10	0·14
USSR	0·13	0·23
Other foreign countries	0·10	0·31
Total	·75	1·20

Source: HM Customs and Excise

Forty-seven per cent by volume of the UK's exports of men's socks are made of wool, as compared with the corresponding figure of 19 per cent for children's socks. Thus the proportion of wool used in exported socks is much higher than that used in the home market. For both men and children, the proportion of woollen socks exported has been dropping steadily.

Table 7.15 UK exports of men's hose, 1963–68

	Cotton		*Wool*		*Man-made fibre*		*Total*	
Year	*Volume* millions of pairs	*Value* £m	*Volume* millions of pairs	*Value* £m	*Volume* millions of pairs	*Value* £m	*Volume* millions of pairs	*Value* £m
1963	0·66	0·01	5·86	1·07	2·93	0·48	9·45	1·56
1964	1·04	0·17	6·35	1·25	2·74	0·45	10·13	1·87
1965	1·61	0·29	6·74	1·33	2·99	0·52	11·34	2·14
1966	1·87	0·32	5·05	1·06	2·76	0·50	8·68	1·88
1967	1·30	0·24	5·27	1·11	3·14	0·56	9·71	1·91
1968	1·62	0·31	4·87	1·09	3·79	0·73	10·28	2·13

Source: HM Customs and Excise

Table 7·16 UK exports of children's hose, 1963–68

	Wool		*Man-made fibres*		*Total*	
Year	*Volume* millions of pairs	*Value* £'000	*Volume* millions of pairs	*Value* £'000	*Volume* millions of pairs	*Value* £'000
1963	0·48	51	0·89	77	1·37	128
1964	0·44	49	0·90	87	1·34	136
1965	0·42	45	0·72	67	1·14	112
1966	0·48	34	0·55	59	1·03	93
1967	0·31	35	0·66	67	0·97	102
1968	0·22	46	0·91	94	1·13	140

Source: HM Customs and Excise

Forecasts of the UK's imports and exports of hose

In general, little change is foreseen in the UK's international trade in other hose. On the other hand, the market for women's tights and stockings is undergoing a major change and we forecast that this will continue to be reflected in international trade. There will continue to be opportunities for importers of cheap tights, and at the same time, there will be an increased market for British exports of good quality garments. These will be of the higher priced panti-hose type and support stockings.

Tables 7.17 and 7.18 give our forecasts of the UK's exports, imports and trade balance in respect of hose. The relatively wide range of our forecasts about the most likely estimates indicates the degree of uncertainty as to whether the export opportunities available will be fully grasped, and the import threats will worsen.

Table 7.17 Forecasts of UK imports and exports of hose £m

		Women's tights and stockings		*Other hose*		*Total*	
		Exports	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*
1968		2	6	3	*	5	6
1973	Lower	4	8	3	*	7	8
	Most likely	7	10	3	1	10	11
	Upper	8	12	4	1	12	13
1978	Lower	5	10	4	1	9	11
	Most likely	11	12	4	1	15	13
	Upper	13	14	5	2	18	16

Note: * less than £½m

Table 7.18 Forecasts of UK trade balance in hose

	1968 £m	1973 £m	1978 £m
Women's tights and stockings			
Actual	−4		
Pessimistic		−6	−5
Most likely		−3	−1
Optimistic		−1	+1
'Other hose'			
Actual	+3		
Pessimistic		+2	+2
Most likely		+2	+3
Optimistic		+3	+4
Total			
Actual	−1		
Pessimistic		−4	−3
Most likely		−1	+2
Optimistic		+2	+5

Chapter 8 Women's and girls' knitted outerwear

In this section, we have summarised the market in terms of 'dresses' and 'other knitted outerwear', which includes suits, separates, slacks, jackets, sportswear and swimwear but excludes overcoats and rainwear.

Our forecasts of fabric requirements are based upon:

the growth in consumer expenditure on these garments—both knitted and woven;

our forecasts of the share of knitted fabrics as against woven fabrics.

SUMMARY OF MARKET PROSPECTS—KNITTED DRESSES

We forecast that the UK market for knitted dresses will more than double over the next decade, with an average annual growth rate in excess of 8 per cent. This is almost twice the forecast rate of growth of the total dress market, because we expect the share of dresses made from knitted fabrics to rise from 48 per cent in 1968 to 70 per cent in 1978 of total expenditure on all dresses. We expect exports to grow much faster than imports. Table 8.1 sets out the 1968 position and our forecasts for 1973 and 1978.

Table 8.1 Market prospects for knitted dresses

		AIC most likely forecasts	
	1968	1973	1978
UK market data			
Consumer expenditure (£m at retail prices)	109	168	250
Demand at manufacturers' sales prices (£m)	64	99	147
Annual growth rate		9%	8%
Growth index	100	155	230
Imports and exports			
Import forecasts (£m cif)	2	4	7
Export forecasts (£m fob)	2	6	12
% of UK market imported	3%	4%	5%
% of UK production exported	3%	6%	8%
Prospects for UK manufacturers			
UK manufacturers' home and export sales of knitted dresses (£m)	64	101	152

SUMMARY OF MARKET PROSPECTS—WOMEN'S AND GIRLS' OTHER KNITTED OUTERWEAR

We forecast that UK demand for other knitted outerwear will increase by 5½ to 6 per cent per annum over the next decade. Imports will more than double, rising from £8 million in 1968 to £17 million in 1978. We anticipate that if export potential is realised, exports could rise from their present value of £4 million per annum to £24 million by 1978. Thus the UK manufacturers' total sales will grow faster than the home market and will double by 1978 (see Table 8.2).

Table 8.2 Market prospects for women's and girls' other knitted outerwear

		AIC most likely forecasts	
	1968	1973	1978
UK market data			
Consumer expenditure (£m at retail prices)	133	173	233
Demand at manufacturers' sales prices (£m)	78	102	137
Annual growth rate:		5½%	6%
Growth index	100	131	176
Imports and exports			
Import forecasts (£m cif)	8	12	17
Export forecasts (£m fob)	4	12	24
% of UK market imported	10%	12%	12%
% of UK production exported	6%	12%	17%
Prospects for UK manufacturers			
UK manufacturers' home and export sales of garments (£m)	74	102	144

Basis of forecasts of UK demand for women's and girls' knitted outerwear

Tables 8.3 and 8.4 show the basis of our estimates of UK demand. By combining our forecasts of the total market for dresses and for other outerwear (both knitted and woven) and our forecasts of the share of knitted garments, we arrived at our forecasts of the increase in value of demand for knitted dresses and women's and girls' knitted other outerwear.

Table 8.3 Forecasts of UK demand for knitted dresses

		1968	1973	1978
Total demand for dresses	£m	135	165	210
	Growth index	100	122	155
Share of knitted dresses	%	48	60	70
Value of demand for knitted dresses	£m	64	99	147
	Growth index	100	155	230

Note: Values in manufacturers' sales prices

Table 8.4 Forecasts of UK demand for women's and girls' other knitted outerwear

		1968	1973	1978
Total demand for women's and girls' other outerwear	£m	156	170	196
	Growth index	100	109	125
Share of knitted garments	%	50	60	70
Value of demand for knitted other outerwear	£m	78	102	137
	Growth index	100	131	176

Note: Values in manufacturers' sales prices.

The proportion of warp knitting in terms of weight is expected to increase as indicated in Table 8.5.

Table 8.5 Forecast of UK production of women's and girls' knitted outerwear by process

% by weight

Process	1968		1973		1978	
	Dresses	*Other*	*Dresses*	*Other*	*Dresses*	*Other*
Weft	97	89	96	86	94	81
Warp	3	11	4	14	6	19

We estimate that about 10 per cent by value of dresses and 15 per cent by value of women's and girls' other knitted outerwear is made up within the hosiery and knitwear industry.

Fabric input

In the absence of published statistical data, we have made our own estimates to enable us to convert figures of fabric input to figures of finished garments output. These are shown in Tables 8·6 and 8·7.

Table 8.6 UK usage of fabric for dresses and women's and girls' other knitted outerwear, 1968

	Fabric weight m lbs		*Finished garments* £m	
	Dresses	*Other*	*Dresses*	*Other*
Warp knitted fabric	1	4	2	6
Weft knitted fabric	27	34	57	72
Weft knitted dresses*	3	—	5	—
Total	31	38	64	78

Note: Values in manufacturers' sales prices

*These are dresses cut and sewn within the hosiery and knitwear industry, using circular garment machinery, e.g. RTR

Table 8.7 Forecasts of UK market for weft knitted dresses and women's and girls' other knitted outerwear

	1968				*1973*				*1978*			
	Dresses		*Other*		*Dresses*		*Other*		*Dresses*		*Other*	
	m lb	£m	m lb	£m	m lb	£m	m lb	£m	m lb	£m	m lb	£m
Warp knitted fabric	1	1	4	3	2	2	7	7	4	4	13	10
Weft knitted fabric	27	29	34	36	40	43	43	45	60	65	56	59
Weft knitted dresses*	3	5	—	—	6	10	—	—	8	14	—	—
Total	31	35	38	39	48	55	50	51	72	83	69	69

Note: Values in manufacturers' sales prices

*These are dresses knitted, cut and sewn within the hosiery and knitwear industry, using circular garment machinery, e.g. RTR

At present dresses made from warp knitted fabric are of flat yarn, e.g. summer lightweight dresses. However, there is likely to be some growth in the warp knitting of textured yarn for women's outerwear. We have not forecast what penetration is likely to be achieved.

Price Structure

Table 8.8 UK market for women's skirts and trousers by price, 1968

Price per garment	*Skirts* %	*Trousers* %
Up to 19s 11d	13	7
20s to 29s 11d	24	10
30s to 39s 11d	18	18
40s to 49s 11d	20	25
50s to 59s 11d	11	16
60s to 69s 11d	6	8
70s to 79s 11d	3	7
80s and over	5	9

Source: ICI Fibres Ltd
Note: All types of fabric

Table 8.9 UK market for women's knitted dress by price, 1968

Price per garment	%
Up to 39s 11d	10
40s to 59s 11d	22
60s to 79s 11d	20
80s to 99s 11d	17
100s to 119s 11d	13
120s to 139s 11d	7
140s to 159s 11d	4
160s and over	7

Source: ICI Fibres Ltd

Distribution

The distribution pattern of women's dresses and suits is similar. Independents take approximately 40 per cent of retail sales, multiple retailers about one-fifth, and variety chains and mail order and departmental stores approximately 10 per cent each. Other outlets constitute the remainder of the market.

The distribution of women's skirts and trousers is slightly different to that of dresses and suits. Variety chains, multiples and independent retailers take between one-fifth and one-quarter of each market; departmental stores and mail order outlets are the only other significant retail channels of distribution.

Consumer profile

Table 8.10 UK purchases of women's outerwear by age group, 1968

Age group years	*Age group as % of total*	*Knitted dresses Volume* %	*Suits and costumes Volume* %	*Skirts Volume* %	*Trousers Volume* %	% *Population growth* 1968–78
15–19	10	11	21	28	28	+12·3
20–29	16	25	23	25	35	+ 4·4
30–39	15	18	14	15	17	+13·9
40–49	17	17	17	13	13	−11·9
50–59	17	14	14	13	6	− 1·8
60+	25	15	11	6	1	+ 7·3

Source: ICI Fibres Ltd
Notes: Apart from dresses, this table includes both woven and knitted garments. No separate figures are available for knitted garments in the other categories.

Fibre content

Table 8.11 UK women's and girls' knitted outerwear, analysis by fibre, 1967

		Man-made		*Natural*		*Total*	
		m lbs	Share %	m lbs	Share %	m lbs	Share %
Dresses	Weft	18	78	5	22	23	100
	Warp	3	100	0	—	3	100
	Total	21	81	5	19	26	100
Other	Weft	19	68	9	32	28	100
	Warp	3	100	0	—	3	100
	Total	22	71	9	29	31	100
Grand total		43	75	14	25	57	100

Table 8.11 contains our estimates of the split between man-made and natural fibres used in women's outerwear. Historic comparisons are difficult to make, but to indicate the degree of change, we have estimated the percentage split for 1954 for the grand total (see Table 8.12).

Table 8.12 UK women's and girls' knitted outerwear, analysis by fibre, 1954

	Man-made		*Natural*		*Total*	
	m lbs	Share %	m lbs	Share %	m lbs	Share %
Weft	3	18	14	82	17	100
Warp	2	80	½	20	2½	100
Total	5	26	14½	74	19½	100

Since 1954 there has been a complete reversal in shares held by natural and man-made fibres. We think that this process of change is now almost complete, and we forecast that the situation for the total women's and girls' knitted outerwear market in 1978 will be:

Natural	20%
Man-made	80%

THE UK's IMPORTS AND EXPORTS OF WOMEN'S AND GIRLS' KNITTED OUTERWEAR

Women's and girls' knitted outerwear imports

Imports have grown from £5 million to £10 million in the last five years, and now account for 7 per cent of the home market. HM Customs and Excise do not supply statistics relating to imports in a form directly comparable with our breakdown of the market. We have therefore had to supplement their statistics with our own estimates (see Table 8.13).

Table 8.13 UK imports of women's and girls' knitted outerwear, 1963–68

Year	*Dresses*	*Other*	*Total*
	£m	£m	£m
1963	1·0	4·1	5·1
1964	1·1	5·0	6·1
1965	1·2	4·1	5·3
1966	1·3	5·1	6·4
1967	1·5	6·7	8·2
1968	1·7	8·3	10·0

Source: HM Customs and Excise, and AIC estimates

It is not possible to give a comprehensive breakdown for each garment by supplier, but Table 8.14 indicates major sources of imports.

In 1968, 48 per cent by value of garments made of wool came from Hong Kong, with a further 16 per cent from Italy and 15 per cent from Eire. France was the next largest supplier with 8 per cent of our imports. Eire was the major supplier of suits and costumes of man-made fibres with 29 per cent by value of imports.

Imports of knitted dresses in 1968 were worth some £1·7m, of which £1·2m were made from wool. Hong Kong supplied 48 per cent by value of these, France being the next largest supplier with a 15 per cent share.

Table 8.14 UK imports of suits, costumes and dresses by principal suppliers, 1968

	Suits and costumes				*Dresses*	
	Mainly wool		*Mainly man-made*		*Mainly wool*	
Country	*Volume* m	*Value* £m	*Volume* m	*Value* £m	*Volume* m	*Value* £m
Hong Kong	0·26	1·29	0·04	0·05	0·04	0·56
Eire	0·07	0·40	0·10	0·44	*	0·07
Denmark	*	0·04	0·07	0·13	*	0·02
France	0·02	0·22	0·04	0·25	*	0·18
Switzerland	0·01	0·12	0·02	0·13	*	0·06
Italy	0·06	0·42	0·07	0·17	*	0·10
Israel	*	0·04	0·03	0·06	*	*
Japan	*	*	0·05	0·06	*	*
Total (all countries)	0·45	2·67	0·58	1·54	0·05	1·19

Source: HM Customs and Excise
*Note:** Negligible

Women's and girls' knitted outerwear exports

It is impossible to distinguish between exports of dresses and of other knitted outerwear. Table 8.15 therefore shows only exports of knitted outerwear in total.

Table 8.15 UK exports of women's and girls' knitted outerwear, 1963–68

Year	*Value* £m
1963	1·4
1964	1·4
1965	1·4
1966	1·0
1967	3·7
1968	4·1

Source: HM Customs and Excise

Table 8.15 excludes exports by parcel post, which are estimated to be about 40 per cent of the above figures. Taking these into account, we estimate that total exports of knitted outerwear for 1968 were £5·7 million, and in round terms exports of dresses were valued at £2 million and other outerwear at £4 million. Exports now account for 4 per cent of UK manufacturers' total sales. Most of the UK's exports are of garments containing more than 50 per cent by weight of wool. Such garments accounted for 60 per cent of the UK's exports of women's and girls' knitted outerwear in 1968.

A comprehensive breakdown of export destinations for each garment type is not available, but Table 8.16 indicates the major customers for garments made of wool.

Table 8.16 **UK exports of women's and girls' knitted outerwear (more than 50 per cent wool by weight) by destination, 1968**

Country	*Volume* millions of garments	*Value* £m
USSR	0·49	2·21
Sweden	0·01	0·09
W Germany	0·01	0·03
Netherlands	0·01	0·03
Other foreign countries	0·03	0·18
Total	0·55	2·54

Source: HM Customs and Excise

The USSR is the UK's largest customer, taking 87 per cent by value of exports of women's and girls' knitted outerwear made of wool.

Forecasts of the UK's imports and exports of women's and girls' knitted outerwear

We forecast rapid growth in the UK's exports of all women's and girls' outerwear, and particularly knitted outerwear. This growth stems from the substitution of knitted fabric for woven fabric, as well as the natural market growth in the demand for these garments.

Imports, on the other hand, are only expected to increase their share of the UK market from the current 7 per cent to 8½ per cent in 1978. This modest increase reflects the rapid growth in the size of the UK market. We forecast that the share that exports take of UK production will increase from 4 per cent in 1968 to 12 per cent in 1978. As our forecasts in Table 8.17 show, there is enormous and hitherto scarcely exploited potential for British exports. We believe the trade balance will certainly improve, but the extent of the improvement will depend entirely on whether this potential is realised. For this reason we have had to place wide limits on our forecasts (see Table 8.18).

It must be stressed that these trade figures refer to knitted garments of which the hosiery and knitwear industry produces only some 10 to 15 per cent.

Table 8.17 Forecasts of UK imports and exports of women's and girls' knitted outerwear

		Dresses		*Other*		*Total*	
		Exports £m	*Imports* £m	*Exports* £m	*Imports* £m	*Exports* £m	*Imports* £m
1968		2	2	4	8	6	10
1973	Lower	4	3	8	9	12	12
	Most likely	6	4	12	12	18	16
	Upper	8	6	15	17	23	23
1978	Lower	7	5	13	13	20	18
	Most likely	12	7	24	17	36	24
	Upper	17	14	36	24	53	38

Table 8.18 Forecasts of UK trade balance in women's and girls' knitted outerwear

	1968 £m	1973 £m	1978 £m
Dresses			
Actual	0		
Pessimistic		0	− 1
Most likely		+2	+ 5
Optimistic		+4	+ 9
Other			
Actual	−4		
Pessimistic		−5	− 2
Most likely		0	+ 7
Optimistic		+3	+15
Total			
Actual	−4		
Pessimistic		−5	− 3
Most likely		+2	+12
Optimistic		+7	+24

Chapter 9 Men's and boys' knitted outerwear

We discuss the market under the headings: 'Tailored outerwear': suits, jackets, trousers, overcoats; 'Other outerwear': sportswear, waistcoats, ties, scarves and swimwear.

In 1968 there was a negligible amount of knitted fabric being used for formal suits, jackets and trousers. Thus, our forecasts cannot be based on past data, but must be derived purely from our assessment of the market potential of a completely new product.

There is, however, a significant amount of knitted fabric already being used for sportswear, swimwear, and casual garments such as waistcoats, ties and scarves.

SUMMARY OF MARKET PROSPECTS—MEN'S AND BOYS' TAILORED OUTERWEAR OF KNITTED FABRIC

This market will grow moderately up to 1973 and then, with the advent of cheaper fabrics, will grow very rapidly in the following five year period (see Table 9.1).

We expect the breakthrough to occur around 1973, and our forecast implies this: clearly, however, it might occur during a longer period on either side of 1973.

Table 9.1 Market prospects for men's and boys' tailored outerwear of knitted fabric

		AIC *most likely forecasts*	
	1968	1973	1978
UK market data			
Consumer expenditure (£m at retail prices	*	63	160
Demand at manufacturers' sales prices (£m)	*	37	94
Annual growth rate	—	21%	
Growth index	—	100	254
Imports and exports			
Import forecasts (£m cif)	*	1	4
Export forecasts (£m fob)	*	1	2
% of UK market imported	—	3%	4%
% of UK production exported	—	3%	2%
Prospects for UK manufacturers			
UK manufacturers home and export sales (£m)	*	37	92

*less than £½m

SUMMARY OF MARKET PROSPECTS—MEN'S AND BOYS' OTHER KNITTED OUTERWEAR

Because of the wide variety of items included under this heading, we have analysed the market only in terms of its fabric requirements (see Table 9.2).

Table 9.2 Market prospects for men's and boys' other knitted outerwear

		AIC *most likely forecasts*	
	1968	1973	1978
Fabric input			
Weight (m lbs)	5	6	7
Value in manufacturers' sales prices (£m)	5	6	7
Annual growth rate		3%	3½%
Growth index	100	116	138

At present, almost all this fabric is weft knitted. It is impossible within the scope of the present study to forecast the proportions of warp and weft knitted fabric in the future.

Basis of forecasts of UK demand for men's and boys' knitted outerwear

Suits

Up to 1973, we expect knitted fabrics for suitings to be predominantly textured polyester, possibly mixed with worsted spun yarn. This fabric will cost the manufacturer about 30s per yard and will produce suits retailing at between £20 and £30. About 27 per cent of all suits retailed in this price range in 1967 (36 per cent 1968) see page 82. (Although current prices paid for suits will increase in the next decade, the price distribution at constant prices will remain substantially the same).

In Table 9.3 we have made three assumptions about the degree of penetration that knitted fabrics will achieve in the total suit market in 1973 and 1978.

In the period between 1973 and 1978, cheaper knitted fabrics will become available in the form of both cheaper polyesters and nylon. Soon after 1973, it will be possible to produce on a commercial scale a satisfactory man-made fibre suit with welded seams with a resulting cost reduction. This will have the effect of allowing suits of knitted fabric to compete for 90 per cent of the total suit market. It will, of course, be necessary for fabric designs to be of good quality, comparable with woven cloths, and a solution must be found to the problem of the cover factor of knitted fabrics. Possible consumer resistance must also be borne in mind.

Table 9.3 UK market prospects for knitted suits

	Lower		*Most likely*		*Upper*	
	1973	1978	1973	1978	1973	1978
Penetration of £20 to £30 suit market by numbers	33%	33%	50%	50%	67%	67%
Penetration of total suit market by numbers	9%	30%	14%	45%	18%	60%
Penetration of total suit market by value	11%	27%	16%	40%	22%	53%
Fabric requirements in m lbs weight	3	14	5	21	7	28
Fabric requirements in manufacturers prices (£m)	5	17	8	23	10	34

ICI have already carried out wearer trials on these suits, some of which have been made up entirely by high frequency welding. This has been found very satisfactory; it should eventually reduce the making-up time for a conventional, button 3, centre vent jacket suit from 2 to 2½ hours down to ½ hour. These suits have been washed in standard washing machines and after a thousand hours' wear there is not the slightest loss of appearance. Not only are the fabrics almost indestructible, but they handle just like worsteds. This means that for conventional making-up there will be no need to re-train manufacturers' employees.

A factor in the growth of this sector is the present shortage of raw materials.

Trousers

The price structure of the men's trousers market for 1967 and 1968 is shown on page 82.

Quality and appearance are less important in the trouser market than in formal suits. About 60 per cent of trousers retailed at less than £3 per pair in 1967 (48 per cent 1968), and we do not believe trousers of knitted fabric will be competitive in this price range.

The market above £5 includes trousers of very high quality, with which trousers of knitted fabric cannot compete. We have estimated that only half of this segment is open to competition from trousers of knitted fabric. In the period up to 1973 knitted trousers will be in the £4 to £5 sector. However, by 1978 the area of competition will be increased to include trousers retailing at between £3 and £4 due to the availability of cheaper fabrics.

In Table 9.4 we have made three assumptions on the degree of penetration that knitted fabrics will achieve in the total available market in 1973 and 1978.

Table 9.4 UK market prospects for knitted trousers

	Lower		*Most likely*		*Upper*	
	1973	1978	1973	1978	1973	1978
Penetration of available market by numbers	33%	33%	50%	50%	67%	67%
Penetration of total trousers market by numbers	5%	12%	8%	18%	11%	23%
Penetration of total trousers market by value	10%	17%	15%	27%	20%	37%
Fabric requirements in m lbs weight	3	8	5	12	6	15
Fabric requirements at manufacturers' prices (£m)	4	10	7	15	9	19

Jackets

The price structure of the men's jackets market by volume for 1967 and 1968 is shown on page 82.

We do not envisage that jackets of knitted fabric will retail at less than £6, nor do we think that they will be competitive in the range retailing at more than £10. This leaves a potential market of 38–45 per cent of all jackets. Even in this price range, competition will be strong due to the demand for the finish given by woollen spun fabric.

We have again made three assumptions on the degree of penetration that knitted fabrics will achieve in 1973 and 1978.

Table 9.5 UK market prospects for knitted jackets

	Lower		*Most likely*		*Upper*	
	1973	1978	1973	1978	1973	1978
Penetration of £6–£10 market by numbers	10%	15%	20%	30%	30%	45%
Penetration of total market by numbers	4%	6%	8%	11%	11%	17%
Penetration of total market by value	4%	7%	9%	13%	13%	20%
Fabric requirements in m lbs of weight	1	1	1	2	2	3
Fabric requirements at manufacturers' prices (£m)	1	2	2	3	3	4

Men's and boys' other knitted outerwear

We estimate that in 1968, 5 million lbs weight of knitted fabric were used in the manufacture of men's and boys' other knitted outerwear. This fabric was used for a wide variety of purposes and it is difficult to attach a reliable average price. At one end of the scale there are textured polyester fabrics at more than 30s per lb, and at the other end there are acetate fabrics at less than 15s per lb. In order to estimate the total value of these fabrics we have used an average manufacturers' selling price of 21s per lb.

To assess the growth rate in fabric requirements we have made the following assumptions:

that penetration of knitted fabrics will remain at its present level, because of the nature of the garments;

that the growth in the total market size will correspond with the fastest growing sectors in men's and boys' outerwear, ie 3 to 3½ per cent per annum. This is because most of these garments are designed for leisure-wear. (See Appendix 2, Table A2.14).

Fabric input

In Table 9.6 are summarised our forecasts of fabric inputs for men's and boys' tailored outerwear of knitted fabric. Fabric input for men's and boys' 'other knitted outerwear' has already been shown.

Table 9.6 Forecasts of knitted fabric input for men's and boys' tailored outerwear

	1968		*AIC most likely estimates* 1973		1978	
	m lbs	£m	m lbs	£m	m lbs	£m
Suits	*	*	5	8	21	23
Trousers	*	*	5	7	12	15
Jackets	*	*	1	2	2	3
Total	*	*	11	17	35	41

Note: *Less than ½m

From the available evidence, it seems probable that the bulk of knitted fabric for men's and boys' tailored outerwear, will be weft knitted: we expect textured continuous filament yarn to be used in the main, and at the moment, little of this is warp knitted.

UK MARKET ANALYSIS

Price Structure

Table 9.7 analyses the price structure of men's and boys' tailored outerwear in 1967 and 1968. It should be noted that this analysis is not confined to knitted garments. The share of knitted garments has been discussed on the preceding pages.

Table 9.7 UK market for men's and boys' tailored outerwear by price, 1968

Garment	*Price*	*% by number* 1967	1968
Suits	Up to £20	62	53
	£20 to £25	18	21
	£25 to £30	9	15
	Above £30	11	11
Trousers	Up to 19s 11d	17	5
	20s to 39s 11d	23	21
	40s to 59s 11d	20	22
	60s to 79s 11d	19	26
	80s to 99s 11d	11	12
	£5 and over	10	14
Jackets	Up to 79s 11d	29	22
	80s to 119s 11d	17	15
	120s to 159s 11d	21	22
	160s to 199s 11d	17	22
	£10 and over	16	19

Source: ICI Fibres Ltd
Note i: All types of fabric are included
ii: The argument in this monograph is based on the 1967 data shown above.

Distribution

Consumers have a well developed loyalty to retail outlets. This limits the effectiveness of the trend towards direct promotional activity by manufacturers and fibre producers in an attempt to create brand loyalty (see Chapter 3). There will be a trend towards specialised outlets in trousers and sportswear.

There are no suitable statistics available on the outlets for men's and boys' other outerwear.

Retail distribution of men's suits is dominated by the multiple tailor who together with the multiple outfitter account for some two-thirds of all sales. The independent retailer is the only other significant outlet although suits are distributed also through departmental stores, co-ops and mail order.

The principal distribution outlet for men's trousers is the independent retailer who takes approximately one-third of this market. Multiple tailors and outfitters account for one-quarter—there is a wide range of outlet categories which take a 5 per cent share or less; the variety chain stores are one of these latter categories.

The multiple tailors and outfitters account for over 40 per cent of men's jacket sales, a further 30 per cent being sold through independent outfitters, the remainder of the market is distributed through a wide range of outlets.

Consumer profile

Young people do not dominate expenditure on suits to the same extent as they do on other outerwear (see Table 9.8). This is because young people tend to dress more casually than older people, and also because older people have more need to express their status by wearing an expensive suit.

Tabel 9.8 UK purchases of men's outerwear by age group, 1968

		Suits		*Trousers*		*Jackets*		
Age group years	*Age group as % of total*	*Volume* %	*Expenditure* %	*Volume* %	*Expenditure* %	*Volume* %	*Expenditure* %	% *Population growth* 1968–78
15–19	11	16	16	25	28	25	22	+12·8
20–29	18	27	26	30	26	24	23	+ 3·7
30–39	18	18	22	17	18	15	13	+12·0
40–49	17	16	17	13	14	15	12	− 7·3
50–59	17	12	11	9	8	12	11	+ 2·0
60+	19	11	8	6	7	9	9	+ 8·6

Source: ICI Fibres Ltd

Fibre content

The trend towards using knitted fabrics and the demand for easy-care will reduce the volume of 'wool and blends' and increase the volume of man-made fibre and blends. However, wool will continue to constitute a significant proportion of the suit and jacket markets, and will also be used to improve the coverage and finish of knitted fabrics. Table 9.9 shows the position in 1967.

Table 9.9 UK men's and boys' outerwear, analysis by fibre, 1968

Fibre	*Men only suits* %	*Trousers* %	*Jackets** %
Wool and blends	48	10	36
Cotton and blends	—	40	16
Terylene and blends	48	34	6
Nylon and blends	—	12	32
Other	4	4	10

Source: ICI Fibres Ltd
Note: *Includes anoraks

THE UK's IMPORTS AND EXPORTS OF MEN'S AND BOYS' KNITTED OUTERWEAR

The UK's international trade in men's and boys' knitted outerwear is negligible. We have therefore based our forecasts of imports and exports on outerwear as a whole. Trade in other outerwear of knitted fabric is indistinguishable statistically, but we estimate that it is negligible and will continue to remain so. Table 9.10 gives our forecasts for men's and boys' tailored knitted outerwear, and it is on these that Table 9.11, trade balance, is based.

These forecasts must be treated with caution, since they refer to what is at the moment a virtually non-existent product. We do not anticipate that a large proportion of UK exports of men's outerwear will be manufactured from knitted fabrics, because the UK's success in exporting stems from the reputation of the 'Savile Row' type of garment and high quality ready mades.

Table 9.10 Forecasts of UK imports and exports of men's and boys' tailored knitted outerwear

		Exports £m	*Imports* £m
1968	Actual	0	0
1973	Lower	*	*
	Most likely	1	1
	Upper	2	2
1978	Lower	1	2
	Most likely	2	4
	Upper	3	5

Note: *less than £½m

Table 9.11 Forecasts of UK trade balance in men's and boys' tailored knitted outerwear

	1968 £m	1973 £m	1978 £m
Actual	—		
Pessimistic		−1	−3
Most likely		0	−2
Optimistic		+1	0

Chapter 10 Women's and girls' knitted innerwear

In this section, we have discussed the market in terms of 'lingerie and nightwear' and 'fabric for foundation garments'. Lingerie means pants, knickers, briefs, slips. Foundation garments means corsets and brassières. A large proportion of fabric for lingerie and nightwear and foundation garments is at present warp knitted. We have included it in this study, since warp knitted fabric represents competition for weft knitters.

SUMMARY OF MARKET PROSPECTS—LINGERIE AND NIGHTWEAR

We forecast that UK demand for knitted lingerie and nightwear garments will grow by 22 per cent to 1973, followed by a slow-down in growth to 10 per cent for the five-year period up to 1978 (see Table 10.1). The slow-down is expected to occur as a result of the approaching saturation of the total lingerie and nightwear market by knitted garments.

We expect imports to grow rapidly and to treble their share of the UK market by 1978.

Table 10.1 Market prospects for women's and girls' knitted lingerie and nightwear

		AIC most likely forecasts	
	1968	1973	1978
UK market data			
Consumer expenditure (£m at retail prices)	100	122	134
Demand at manufacturers' sales prices (£m)	59	72	79
Annual growth rate		4%	2%
Growth index	100	122	134
Imports and exports			
Import forecasts (£m cif)	2	5	8
Export forcasts (£m fob)	1	3	4
% of UK market imported	3%	7%	10%
% of UK production exported	2%	4%	5%
Prospects for UK manufacturers			
UK manufacturers' home and export sales (£m)	58	70	75

SUMMARY OF MARKET PROSPECTS—FOUNDATION GARMENTS

Because of the wide variety of fabrics included under this heading, we have analysed the market only in terms of its knitted basic fabric requirements, excluding laces and bindings. The 1968 position and our forecasts for 1973 and 1978 are set out in Table 10.2.

Table 10.2 Market prospects for foundation garments

		AIC most likely forecasts	
	1968	1973	1978
Fabric input			
Weight (m lbs)	4	5	5
Value at manufacturers' sales prices (£m)	18	20	21
Annual growth rate		2½%	1%
Growth index	100	113	117

Basis of forecasts of UK demand for women's and girls' knitted innerwear

We forecast that the market for knitted and woven lingerie and nightwear will grow by 19 per cent in the next decade, and that the proportion held by knitted garments will rise from 76 per cent in 1968 to 86 per cent in 1978. This is illustrated in Table 10.3, the bottom line of which shows UK demand for all women's and girls' knitted lingerie and nightwear garments, whether or not they are made within the hosiery and knitwear industry.

Table 10.3 Forecasts of UK demand for women's and girls' knitted lingerie and nightwear

	1968	1973	1978
Total knitted and woven garment market at manufacturers' sales prices (£m)	78	88	92
Proportion of knitted garments (per cent by value)	76	82	86
Total knitted garment market at manufacturers' sales prices (£m)	59	72	79

We estimate that in 1968 4 million lbs weight of knitted fabric, approximately equivalent to 16 million square yards, were used in the manufacture of foundation garments. This fabric was used for a wide variety of purposes, and it is difficult to attach a reliable average price. Fibre prices vary from £1 to £5 per lb and fabric prices from 23s to 40s per linear yard. Using the averages of both these price ranges, we have estimated fabric value at £18 million at manufacturers' sales prices.

To forecast the growth of demand for fabric for foundation garments, we have made the following assumptions:

that penetration of knitted fabrics will remain at its present high level;

that the growth in the size of the total market will be equal to the growth forecast for the total women's innerwear market on the basis of our economic analysis, ie 13 per cent growth between 1968 and 1973, and 17 per cent growth between 1968 and 1978, as shown in Table 10.2.

Fabric input

Requirements of fabric for UK production of women's and girls' lingerie and nightwear have been estimated as shown in Table 10.4, which shows separately the values of circular knitted garments, fabric for making-up and garments made up from that fabric.

Table 10.4 Forcasts of UK production of women's and girls' knitted lingerie and nightwear

	1968		1973		1978	
	£m	m lbs	£m	m lbs	£m	m lbs
Circular knitted garments;	20	—	22	—	24	—
knitted fabric	18	23	23	29	24	30
Value of garments made up from above fabric	36	—	46	—	48	—
Total garments	56	—	68	—	72	—

Note:
Values at manufacturers' sales prices
Estimates of fabric input for women's and girls' nightwear have been given in Table 10.2

Price structure

Table 10.5 UK market for pants, briefs and knickers by price, 1968

Price	%
Up to 1s 11d	1
2s to 3s 11d	43
4s to 5s 11d	41
6s to 7s 11d	8
8s to 9s 11d	5
10s and over	2

Source: ICI Fibres Ltd

Table 10.6 UK market for slips by price, 1968

Price	*Waist slips* %	*Full slips* %
Up to 4s 11d	16	8
5s to 9s 11d	42	
10s to 14s 11d	24	10
15s to 19s 11d	8	22
20s to 24s 11d	4	21
25s to 29s 11d	6	26
30s to 39s 11d		11
40s and over		2

Source: ICI Fibres Ltd

Table 10.7 UK market for women's and girls' nightwear by price, 1968

Price	%
Up to 19s 11d	23
20s to 24s 11d	13
25s to 29s 11d	23
30s to 34s 11d	9
35s to 39s 11d	17
40s and over	15

Source: ICI Fibres Ltd

Table 10.8 UK market for corsets by price, 1968

Price	%
Up to 9s 11d	8
10s to 19s 11d	20
20s to 29s 11d	21
30s to 39s 11d	13
40s to 49s 11d	14
50s to 59s 11d	8
60s to 69s 11d	5
70s to 79s 11d	4
80s to 89s 11d	5
90s to 99s 11d	
100s and over	2

Source: ICI Fibres Ltd

Table 10.9 UK market for brassières by price, 1968

Price	%
Up to 3s 11d	3
4s to 5s 11d	5
6s to 7s 11d	8
8s to 9s 11d	19
10s to 11s 11d	5
12s to 13s 11d	15
14s to 15s 11d	7
16s to 19s 11d	13
20s to 29s 11d	16
30s and over	9

Source: ICI Fibres Ltd

Distribution

The distribution of women's innerwear garments is strongly orientated to the variety chain store—as much as 50 per cent of some markets are sold through this category of outlet. Multiple stores and other types account for between 10–15 per cent of sales of most items of innerwear—independent retailers sell approximately 20 per cent of each category. Departmental stores and mail order are the only other important outlets for garments of this type, although a good proportion of sales of garments of this type are through outlets categorised as 'other'

Consumer profile

Foundation garments differ from most other garment groups in that, although young people buy garments more frequently than older people, the average price paid per garment bought by young people is much less.

Table 10.10 UK purchases of women's innerwear by age group, 1968

Age group years	*Age group as % of total*	*Pants, briefs and knickers*		*Waist slips*		*Corsets*		*Brassières*		*Nightwear market*		*Full slips*		% *Population growth* 1968–78
		Volume %	*Expenditure* %	*Volume* %	*Expenditure* %	*Volume* %	*Expenditure* %	*Volume* %	*Expenditure* %	*Volume* %	*Expenditure* %	*Volume* %	*Expenditure* %	
15–19	10	19	20	39	40	12	8	20	19	14	21	12	14	+12·3
20–29	16	24	22	38	36	24	22	28	25	25	25	22	23	+ 4·4
30–39	15	17	16	14	15	17	18	18	19	16	13	17	18	+13·9
40–49	17	18	17	6	6	18	20	15	18	15	16	19	19	−11·9
50–59	17	12	13	1	2	13	17	12	13	15	13	17	17	− 1·8
60+	25	10	12	2	0	16	15	7	6	15	12	13	9	+ 7·3

Source: ICI Fibres Ltd

Table 10.11 UK women's and girls' innerwear, analysis by fibre, 1968

	Cotton and blends %	*Nylon and blends* %	*Spandex fibre* %	*Other* %
Full slips	2	94	—	4
Waist slips	8	89	—	3
Pants, briefs and knickers	41	54	—	5
Nightdresses	15	83	—	2
Brassières	43	47	9	1
Corsets	13	40	40	7

Source: ICI Fibres Ltd

The penetration of man-made fibres in the manufacture of women's and girls' knitted innerwear is now very high, with the exception of brassières, pants, briefs and knickers, where cotton still holds a very large share. We expect the trend towards the increasing use of man-made fibres to continue in the next ten years, but very much more slowly than in the immediate past.

There will be limited consumer acceptance of 'disposable' garments made of short life fabrics. Our consumer research indicated that consumers see disposable clothing as a completely different concept from normal clothing. Disposable clothes are often considered suitable for special circumstances such as travelling and holidays, but seldom for everyday use. (See Appendix 4).

Short life fabrics are likely to be non-woven, not paper based, in order to achieve sufficient durability, drape and ease of manufacturing.

THE UK's IMPORTS AND EXPORTS OF WOMEN'S AND GIRLS' KNITTED INNERWEAR

As foundation garments have been considered only in terms of fabric, it has not been possible to carry out any analysis of the UK's international trade in finished garments. Thus, the following analysis refers only to lingerie and nightwear.

Table 10.12 shows that imports of knitted lingerie and nightwear have grown rapidly since 1967. However, even now, imports constitute only 3 per cent by value of the UK market.

Table 10.12 UK imports and exports of women's and girls' knitted lingerie and nightwear, 1963–68

Year	*Exports* (£m)	*Imports* (£m)
1963	0·3	1·8
1964	0·4	1·8
1965	0·4	1·2
1966	0·4	1·8
1967	0·4	1·8
1968	0·6	2·4

Source: AIC Estimates

The principal countries of origin of the UK's imports are:

Hong Kong
Eire
France
Switzerland
Italy
Israel
Portugal

Other Far Eastern countries, such as Korea, are becoming increasingly important as suppliers. Table 10.12 excludes exports by parcel post, which are estimated to be about 40 per cent of the above figures. Taking these into account, we estimate that total exports of knitted lingerie and nightwear for 1968 were £1 million. Exports are very small, accounting for only 2 per cent by value of home production.

We export small amounts to a large number of countries, the principal customers being North America and Eire.

Forecasts of the UK's imports and exports of knitted lingerie and nightwear

We forecast rapid growth in imports but not in exports. This will lead to a worsening trade balance, with imports to take a share of the home market of 10 per cent in 1978. Exports are expected to grow slowly from 2 per cent of home production in 1968 to 5 per cent in 1978.

It must be stressed that these trade figures refer to all knitted lingerie and nightwear garments of which the hosiery and knitwear industry produces only about one-third.

10.13 Forecasts of UK imports and exports of women's and girls' knitted lingerie and nightwear

		Exports £m	*Imports* £m
1968	Actual	1	2
1973	Lower	2	3
	Most likely	3	5
	Upper	3	6
1978	Lower	3	4
	Most likely	4	8
	Upper	4	12

Table 10.14 Forecasts of UK trade balance in women's and girls' knitted lingerie and nightwear

	1968 £m	1973 £m	1978 £m
Actual	−1		
Pessimistic		−3	−7
Most likely		−2	−4
Optimistic		−1	−2

Chapter 11 Men's and boys' knitted innerwear

In this section, we have summarised the market in terms of 'underwear' and 'nightwear'.

Summary of market prospects—men's and boys' knitted underwear

We forecast that the UK market for men's and boys' underwear will grow very slowly. The most significant trend in the next decade will be the rising import threat; we expect imports to treble in value by 1978 and to increase their share of the UK market from 14 per cent in 1968 to 45 per cent in 1978.

Table 11.1 Market prospects for men's and boys' knitted underwear

		AIC most likely forecasts	
	1968	1973	1978
UK market data			
Consumer expenditure (£m at retail price)	35	36	37
Demand at manufacturers' sales prices (£m)	21	21	22
Annual growth rate		0·5%	0·5%
Growth index	100	103	105
Imports and exports			
Import forecasts (£m cif)	3	7	10
Export forecasts (£m fob)	1	1	1
% of UK market imported	14%	33%	45%
% of UK production exported	5%	7%	8%
Prospects for UK manufacturers			
UK manufacturers' home and export sales £m	19	15	13

Summary of market prospects—men's and boys' knitted nightwear

The UK market for men's and boys' nightwear as a whole will grow very slowly—½ per cent per annum in the period 1968 to 1978—but we forecast increased use of knitted fabrics in this market. This will produce rapid growth in the requirements for knitted fabric, but the volumes involved will not be large. Growth in imports will restrict the opportunities available to UK manufacturers.

Table 11.2 Market prospects for men's and boys' knitted nightwear

		AIC most likely forecasts	
	1968	1973	1978
UK market data			
Consumer expenditure (£m at retail prices)	*	7	14
Demand at manufacturers' sales prices (£m)	*	4	8
Annual growth rate			15%
Growth index	—	100	200
Imports and exports			
Import forecasts (£m cif)	*	1	3
Export forecasts (£m fob)	*	*	*
% of UK market imported	—	25%	37%
% of UK production exported	—	—	—
Prospects for UK manufacturers			
UK manufacturers' home and export sales (£m)	*	3	5

*Less than £½m

Basis of forecasts of UK demand for men's and boys' knitted innerwear

We have made three basic assumptions in arriving at our forecast of the UK market for men's and boys' underwear:

That an insignificant proportion is manufactured from woven fabric.

That an insignificant proportion is manufactured from warp knitted fabric.

That an insignificant proportion is manufactured outside the hosiery and knitwear industry.

There has been no significant penetration of the UK market for men's and boys' nightwear by knitted fabrics to date. However, we anticipate that the situation will change and have made three assumptions on the degree of penetration that knitted fabrics will achieve in this market (see Table 11.3).

Table 11.3 Forecasts of UK demand for men's and boys' knitted nightwear

	1973			1978		
	Lower	*most likely*	*upper*	*Lower*	*most likely*	*upper*
Value of total nightwear market at manufacturers' sales prices (£m)	15	15	15	16	16	16
Penetration of total market by knitted garments	15%	25%	30%	33%	50	67%
Value of knitted garments* at manufacturers' sales prices (£m)	2	4	5	5	8	11

*The last row is estimated from the previous two rows: figures have been rounded to the nearest £m

Fabric input

Adjusting for imports and exports, the total fabric requirements of UK manufacturers of men's and boys' knitted nightwear will probably be as shown in Table 11.4. In order to illustrate the small quantities of fabric required, we have taken the widest feasible range of alternatives. At the present very early stage of penetration, it is impossible to say how much of this fabric will be warp knitted and how much will be weft knitted.

Table 11.4 Forecasts of fabric input for men's and boys' knitted nightwear

	1973			1978		
	Lower	*most likely*	*upper*	*Lower*	*most likely*	*upper*
Fabric requirements in m lb weight	*	2	2½	½	3	5½
Fabric requirements at manufacturers' sales prices (£m)	*	1½	2	½	2½	4½

Note: *Less than ½m

UK MARKET ANALYSIS

Price structure

There are no reliable figures showing the price distributions for either nightwear or underwear.

Distribution

Variety chain stores and independent retailers both account for approximately one-quarter of the market for men's and boys' nightwear. Departmental stores and mail order outlets each have shares of approximately 10 per cent; other outlets account for the remainder of the market.

There is no reliable data on retail outlets for men's and boys' underwear.

Consumer profile

The pyjama market is extremely conservative, and the influence of fashion has been comparatively small. Over the next ten years we expect some increase in the influence of fashion, although this will still be limited to a minority sector of the market. Nonetheless, this implies some opportunities for a few firms.

Brighter and more sophisticated prints and colours will become more popular, as will closer fitting garments with narrower legs and trimmer seats. There may also be a slight growth in 'shortie' pyjamas, 'smock' styles and pullover tops. Stylish and coloured underwear fashions have had very little impact on the market; we do not anticipate that trading up will occur.

There is no reliable data on men's underwear purchases by age group, but Table 11.5 shows the position for nightwear.

Table 11.5 UK purchases of men's nightwear by age group, 1968

Age group	*Age group as % of total*	*Nightwear*		*% Population growth* 1968–1978
		Volume %	*Expenditure %*	
15–19	11	10	10	+12·8
20–29	18	16	18	+ 3·7
30–39	18	17	15	+12·0
40–49	17	24	23	− 7·3
50–59	17	13	16	+ 2·0
60+	19	20	18	+ 8·6

Source: ICI Fibres Ltd

Fibre content

Table 11.6 UK men's and boys' nightwear, analysis by fibre, 1968

Fibre	%
Cotton and blends	89
Silk	1
Rayon and blends	1
Nylon and blends	8
Others	1

Source: ICI Fibres Ltd

There is no reliable data on fibre content for men's underwear, but light cotton underwear already holds a major share of the market, and the growth of central heating in homes and offices will make heavy woollen underwear obsolescent.

Drip-dry cottons for men's and boys' nightwear have not yet become fully accepted, because the chemicals used in finishing result in fabric which tends to be hard and cause skin irritation. Wider use of drip-dry cotton therefore depends on technical improvements in finishing.

Nylon and terylene blends will continue to grow in popularity and these fabrics offer easy-care.

Disposable underwear will continue to make a limited impact on the market in the next decade. New developments will concentrate on cementing techniques and automated making-up, but we consider that conventional underwear, which is cheap and can be laundered and used a great number of times, will only be affected very marginally by disposables. Disposables will be limited chiefly to specific uses such as travel.

The UK's imports and exports of men's and boys' knitted innerwear

HM Customs and Excise do not supply statistics relating to imports in a form directly comparable with our breakdown of the market. We have, therefore, had to supplement their statistics with our own estimates (see Table 11.7).

Table 11.7 UK imports and exports of men's and boys' knitted underwear, 1963–68

Year	*Exports* £m	*Imports* £m
1963	0·6	1·6
1964	0·6	1·6
1965	0·7	1·1
1966	0·7	1·5
1967	0·8	2·2
1968	0·9	2·9

Source: AIC estimates based on HM Customs and Excise

Imports account for 14 per cent of the UK knitted underwear market. Imports of knitted nightwear are negligible.

Hong Kong and Portugal are two major suppliers of men's knitted underwear.

Table 11.7 excludes exports by parcel post, which are estimated to be about 40 per cent of the above figures. Taking these into account, we estimate that total exports of men's and boys' knitted underwear for 1968 were £1.3 million.

About half of these exports were cotton, with wool and man-made fibres having equal shares of the remainder. UK exports go in small quantities to a large number of countries with Eire and the Commonwealth being the most significant.

Exports of knitted nightwear are negligible.

Forecasts of the UK's imports and exports of men's and boys' knitted innerwear

Imports of underwear and nightwear are expected to grow rapidly from 14 per cent by value of the UK market in 1968 to 43 per cent in 1978. At the moment, imports of knitted nightwear are negligible, but we foresee the increased use of warp knitted fabrics in this area, which will lead to competition from the same suppliers as are now successfully producing warp knitted shirts.

Table 11.8 Forecasts of UK imports and exports of men's and boys' knitted innerwear

		Nightwear		*Underwear*		*Total*	
		Exports £m	*Imports* £m	*Exports* £m	*Imports* £m	*Exports* £m	*Imports* £m
1968		*	*	1	3	1	3
1973	Lower	*	1	1	6	1	7
	most likely	*	1	1	7	1	8
	Upper	*	2	1	8	1	10
1978	Lower	*	2	1	8	1	10
	Most likely	*	3	1	10	1	13
	Upper	1	4	1	12	2	16

Note: *Less than £½m

Table 11.9 Forecasts of UK trade balance in men's and boys' knitted innerwear

	1968 £m	1973 £m	1978 £m
Nightwear			
Actual	0		
Pessimistic		−2	−4
Most likely		−1	− 3
Optimistic		−1	− 2
Underwear			
Actual	−2		
Pessimistic		−7	−10
Most likely		−6	− 9
Optimistic		−5	− 8
Total			
Actual	−2		
Pessimistic		−8	−14
Most likely		−7	−12
Optimistic		−6	−10

Chapter 12 Knitted fabrics for apparel, upholstery, household and other uses

This section summarises the fabric requirements for apparel, as discussed in Chapters 6 to 11, and also covers fabric requirements for other end uses.

SUMMARY OF REQUIREMENTS OF WEFT KNITTED FABRICS FOR GARMENTS

Table 12.1 summarises the estimated requirements of weft knitted fabrics for each garment group discussed in the preceding monographs. A proportion of the fabric shown in Table 12.1 as weft knitted will, in the future, probably be warp knitted from textured yarn. To have attempted to forecast this proportion, without much more detailed research than was possible, would have amounted to mere conjecture.

Table 12.1 Estimates of future UK requirements of single and double jersey fabrics for garments

			AIC most likely estimates			
	1968		1973		1978	
Garment group	*Weight* m lbs	*Value* £m	*Weight* m lbs	*Value* £m	*Weight* m lbs	*Value* £m
Women's and girls' dresses	27	29	40	43	60	65
Women's and girls' other outerwear	34	36	43	45	56	59
Men's and boys' tailored outerwear	*	*	11	17	35	41
Men's and boys' other outerwear	5	5	6	6	7	7
Men's and boys' nightwear	*	*	2	1½	3	2½
Grand total	66	70	102	112½	161	174½

Notes:
Values are at manufacturers' sales prices
The figures refer to fabrics sold in the piece
*Less than ½m

REQUIREMENTS OF KNITTED FABRIC FOR OTHER USES

Upholstery

The upholstery market is divided between primary upholstery and secondary upholstery (loose covers).

Primary upholstery

In a survey undertaken in 1965, the Furniture Development Council assessed the total market size of upholstery fabric to be 16·5 million linear yards (based on a width of 48 inches). It is thought that the market is now around 20 million. See Table 12.3.

We estimate that warp knitted fabric's share of this market is 10 per cent, established largely on the strength of bonded loop raised fabrics. Very little is weft knitted at present: despite higher cost, weft knitted fabric ought to be able to compete in the higher quality ranges. Competition is expected to increase from warp knit at the expense of woven cloth. Warp knitted fabric is now priced at a level which jersey manufacturers would find it difficult to meet. Laminated brushed nylons are firmly established in this sector. In the five years 1963 to 1968, UK deliveries of upholstered furniture have grown at 5 per cent per year on average, as can be seen in Table 12.2. We would expect the growth in the requirements for knitted fabrics to be considerably greater than this, in view of the handling characteristics of knitted fabrics, which are still to be fully exploited.

Since a great deal of this fabric is bonded, it is being marketed by laminators for this end use. It can therefore be argued that the warp knitter has not yet entered this market as a serious competitor, and opportunities undoubtedly exist for expansion of warp knitted fabric's share of the primary upholstery market.

Table 12.2 UK deliveries of upholstered furniture, 1954–68

Year	*Index*	*Year*	*Index*
1954	100	1961	132
1955	95	1962	130
1956	94	1963	132
1957	102	1964	149
1958	107	1965	158
1959	123	1966	155
1960	126	1967	152
		1968	173

Source: Furniture Development Council

One sector of furniture manufacturing is particularly suited to knitted fabric. This is the development of chair shells of plastic materials such as polyurethane or polystyrene. This sector is growing at about 10 to 15 per cent per year.

The most recent data available to us on the distribution of upholstery covering material between the principal fabrics is shown in Table 12.3.

Table 12.3 UK upholstery covering material, 1965

	Quantity m linear yards at 48 inches width	*Value* £m	*Share* (*volume*) %
Uncut moquettes	8·1	5·4	49
Flat woven fabrics	4·3	2·9	26
Unsupported PVC sheet	2·4	0·5	15
Coated fabrics	1·0	0·6	6
Others	0·7	0·8	4
TOTAL	16·5	10·2	100

Source: Furniture Development Council

Secondary upholstery

It is estimated that 15 millions lbs of fibre are used annually for replacement covers. Loose covers, primarily of woven cloth, account for two-thirds of this market; 9 million yards of nylon, weighing 5 million lbs, used for stretch covers, make up the remainder of the market. This is virtually a 100 per cent stretch nylon market. Allowing for a percentage of other fibres used in conjunction with nylon, there could be around 15 million square yards of stretch cover fabric produced per year. On this basis, double jersey accounts for 9 million square yards and single jersey 6 million.

Warp knitting does not feature, nor is it likely to in the future, since construction of the fabric is not as well suited to this end use as double jersey.

Household textiles

About 170 million square yards of fabric are sold annually for curtains. The proportion of this market held by knitted fabric is not known. The use of bonded and laminated fabrics is growing rapidly—especially in ready-to-hang curtains. There are also opportunities for mini-foamed or 'coined' circular knitted fabrics, as well as the brushed warp knits which have so far dominated the knitted curtain market.

Sheets, being woven or warp knitted, are not covered by this study.

Industrial uses

Motor vehicles

Although British car manufacturers have so far been slow to use knitted fabrics, especially the raised loop type, the use of such fabrics in several countries is increasing quite rapidly. A number of French cars are already upholstered in knitted fabrics, as are various German Ford models and five American General Motors models in their 1967–68 range.

The fabric most commonly used is made from nylon. On the face of the fabric, a surface effect is obtained in some cases by the use of an embossing calendar, and the back of the fabric is very lightly coated in order to increase the elasticity and recovery of the cloth.

Laminated brushed nylon fabrics are already available on some car models as an optional alternative to PVC. At the present these are warp knitted: price is critical in the motor car industry and this would make it difficult for weft knitted fabric to compete. They have many advantages—giving a hard-wearing, breathing, stain-resistant surface, which is cool in summer, warm in winter and more comfortable than PVC. Almost all the large car manufacturers are working on this idea, and the volume is likely to grow steadily.

The use of such fabric at the moment is slight, but to give an indication of the market potential, there are currently about 2 million vehicles manufactured each year in the UK. At 10 square yards of fabric per car, the potential requirement of 20 million square yards output is equivalent to a total fabric input of both backing and face fabric of the order of 30 million square yards on the assumption that half would be laminated, and half plain fabric or foam backed.

Other industrial uses

The potential range of industrial uses is vast, including industrial and commercial furnishings, industrial fabrics such as sacking, linings and backing materials, most of which have not yet been exploited by the hosiery and knitwear industry.

WEFT KNITTING

According to the Board to Trade, gross sales of weft knitted fabric in 1967 and 1968 were as shown in Table 12.4.

Table 12.4 UK manufacturers' gross sales of weft knitted fabric —by type of fibre, 1967 and 1968

	1967		1968	
	Weight m lbs	*Value* £m	*Weight* m lbs	*Value* £m
Of wool	6·9	7·8	7·6	9·1
Of cotton—				
For apparel	4·6	2·1	3·9	2·0
For other purposes	9·7	2·9	11·4	3·8
Of synthetic fibres	21·6	25·0	31·7	36·9
Of other fibres*	1·4	1·3	2·5	2·2
Total	44·2	39·1	57·1	54·0

Source: Board of Trade

Notes: The figures refer to firms employing 25 or more persons

During 1968 firms responding only to the warp knitted fabrics enquiry (ie firms engaged wholly or mainly in warp knitting) reported sales of weft knitted fabric, not included above, totalling £1 million (in 1967 the comparable figure was £0·9 million); these firms were not required to provide details about sales of weft knitted products.

In 1968 firms employing fewer than 25 persons reported production of weft knitted fabric, not included above, totalling 8·6 million lbs. (5·8 million lbs in 1967); these firms were not required to give a breakdown by type of fibre

*Including yarn of natural fibres not elsewhere specified.

Table 12.5 shows 1967 consumption of fibres in jersey fabric for garments. No distinction is made in this analysis between single and double jersey.

Table 12.5 UK consumption of fibres in jersey fabric for garments by end use, 1967

	Natural fibres m lbs	*Man-made fibres* m lbs	*Total* m lbs
Women's wear			
Dresses	5	18	23
Suits	6½	8	14½
Trews	1	4	5
Other	—	1½	1½
Men's wear	1	2½	3½
Children's wear	2½	7½	10
Sportswear, retail piece goods, etc.	1½	7½	9
Total	17½	49	66½
of which filament	—	35½	35½

Source: ICI Fibres Ltd

1968 consumption of fibres in jersey fabric for garments is estimated by industrial sources to have exceeded 90 million lbs weight. This figure is in excess of our figure of consumption of fabric for garment making shown in Table 12.1 for 1968. Whilst it has not been possible to carry out sufficient research to establish definite reasons for this, factors which are clearly relevant include:

lead time: this has been estimated by Industry sources as varying between 3 months and 12 months; this appears to depend upon a number of factors, such as type of fibre, type of garment, type of knitting process, type of company, etc.

stocks: during 1967 fabric stocks almost certainly decreased but, by the end of 1968, overcompensation had caused production of fibre and fabric to run ahead of consumption.

Board of Trade estimates of the volume of sales of weft knitted fabric in 1968 are very much lower than those from industrial sources. Perhaps the discrepancy can be partly accounted for by the fact that the Board of Trade only records weft knitted fabric bought or sold as such and possibly does not take account of the fabric which is both knitted and made up into garments within the same manufacturing unit. The fact that some firms classified as weavers produce some weft knitted fabric may be a contributory factor.

We cannot say what relative importance should be attached to these factors, nor are we able to identify any additional factors which may account for this apparent anomaly. It is clear that this is an area which would repay more detailed study.

It is interesting to note that staple fibres such as the acrylics feature prominently in weft knitting. Table 12.6 gives an indication of the relative rates of growth of man-made fibres, as against natural fibres:

Table 12.6 UK consumption of fibres in jersey fabric, 1954 and 1967

Fibre	1954 m lbs	1967 m lbs
Raw cotton	6	5½
Virgin wool	8	12
Rayon	3	6
Synthetics	—	43
Total	17	66½

Source: ICI Fibres Ltd

During the past four years the main stream of development has been based on textured nylon and textured polyester filament yarns. In particular, Crimplene usage in jersey has grown an estimated 250 per cent in this period.

At the beginning of 1968, it was estimated that there were 1,850 double jersey machines installed in this country with a capacity of approximately 100 million running yards of fabric, which is equivalent to some 60 million lbs weight of fibre. In February 1969 it was estimated that 800 or so double jersey machines were on order for delivery within the next two years. A significant feature of these machines is that they could increase the output capacity of the industry by as much as 50 per cent. In 1970 the industry will thus be in a position to produce approximately 150 million running yards of fabric, involving about 90 million lbs weight of fibre.

Although there was an acute shortage of both nylon and polyester last year, we consider that the increases in output capacity announced by the various fibre producers and yarn processors will be sufficient to meet the demands of the Industry, which will therefore be in a position to supply the fabric.

The success of single jersey fabrics is very much tied to laminated production in the UK, and this is discussed more fully in the section under 'Laminating'.

COMPETITION FROM WARP KNITTING

Official estimates of the volume of production of warp knitted fabrics sold in the piece tend to be under-estimates, but we reproduce the following table in order to indicate the growth in this sector.

Table 12.7 UK output and sales of warp knitted fabric, 1960–68

Year	*Quantity knitted* m lbs	*Gross sales* m lbs	£m
1960	18·8	16·1	16·9
1961	18·4	17·1	18·3
1962	22·1	19·8	20·8
1963	28·3	24·6	26·1
1964	32·3	28·1	28·8
1965	37·5	31·5	33·0
1966	35·5	33·6	32·2
1967	46·7	44·0	36·2
1968	66·6	61·1	50·1

Source: Board of Trade

Notes:

The table shows figures from firms employing 25 or more persons. During 1968 firms employing fewer than 25 persons reported production of warp knitted fabric, not included above, totalling 3·6 million lbs. The corresponding figure for 1967 was 2·5 million lbs.

Sales of warp knitted fabric produced in the piece were relatively static at about 16 million pounds weight per year from 1955 to 1960, though the proportion of synthetic fibre content increased from 15 per cent in 1955 to 56 per cent in 1960. The penetration of synthetic fibre was at the expense of wool, which dropped to a quarter of its 1955 weight by 1960, and of all other fibres, the consumption of which was halved during the same period.

Since 1961 warp knitting has been booming. The weight of fabric sold has increased 3 times in the five years 1962–68. Growth between 1962 and 1968 was at a rate of 20 per cent per year in volume and 16 per cent per year in value. The average price for the industry's goods is dropping.

At the same time the percentage of synthetic fibre has increased from 63 per cent in 1962 to over 80 per cent in 1967. Gross sales of warp knitted fabric made from synthetic fibres have increased by 26 per cent per year on average since 1962 (1967 Index is 312). This growth is levelling off at about 80–85 per cent. The weight of other fibre fabric sold has remained constant at about 7 million pounds per year. This fabric is mainly produced from regenerated fibres.

Table 12.8 gives an end-use analysis of the 1967 and 1968 Quantity figures shown in Table 12.7.

Table 12.8 UK production of warp knitted fabrics by end use, 1967–68

	1967 m lbs	*1968* m lbs	*Percentage change*
Apparel fabrics			
Women's and girls' lingerie and nightwear	17·3	23·9	+ 38
Men's and boys' shirts and nightwear	12·4	14·7	+ 18
Dresses, blouses and domestic overalls	4·9	5·6	+ 14
Suits, skirts, trousers, jackets, coats and the like	0·9	1·1	+ 25
Garment lining and interlinings	2·3	5·7	+149
Gloves	0·3	0·6	+ 79
Other (including footwear, legwear and millinery)	2·3*	2·0*	− 14
Household textiles and furnishing fabrics			
Sheets	4·2	9·0	+113
Curtain nets	1·0	0·7	− 30
Other	0·9†	3·3†	+266
Industrial cloths			
Total	46·7	66·6	+ 43

Source: Board of Trade
Notes:
*Including a small quantity of fabric for industrial overalls.
†Including fabric for industrial cloths.
Excludes production by firms employing fewer than 25 persons which is estimated to have totalled 3·6 million lbs in 1968. The corresponding figure for 1967 was 2·5 million lbs. These firms were not required to give a breakdown by end-use.

ICI recently published the figures shown in Table 12.9 which indicate the filament consumption in warp knitting for apparel uses by end-use. These indicate that in 1967, apparel fabrics accounted for 91 per cent of production. Latest indications, although there are no statistics available, are that the percentage of warp knitted fabric now being used for apparel is on the decline and that the share attributable to household/furnishing/industrial fabrics has risen from 9 per cent in 1967 to something of the order of 15 per cent in 1968.

Table 12.9 UK consumption of filament fibres in warp knitting for garments by end-use, 1967

Type of garment	m lbs	m sq yds	*Weight of fabric* lb/sq yd
Lingerie	13	94	0·14
Nightwear	6½	35	0·19
Shirts	12½	75	0·17
Foundation garments	3½	14	0·25
Dresses, blouses, overalls	5	25	0·20
Linings	1½	7	0·21
Gloves	½	2	0·25
Fabric exports	5	20	0·25
Other	3½	18	0·19
Total	51	290	0·19

Source: ICI Fibres Limited

LAMINATING AND BONDING

Foam backing and foam laminating

We discuss this market in terms of the data collected by the Board of Trade. In this area of rapid change, the accuracy of this data is uncertain, but unfortunately there are no other reliable statistical sources which can be used as cross-checks.

In recent years foam backing and foam laminating have become a growth point in the use of knitted and other fabrics. The area of fabric used has been growing at an average of 27 per cent per year since official figures were first established in 1965. By 1968 input of fabrics had grown to 51 million square yards per year in order to produce an output of 34½ million square yards.

Table 12.10 shows that knitted fabric has a 38 per cent share of this sector when input is measured in square yards. This proportion has remained constant since 1966 though it was 28 per cent in 1965. Thus the growth in the use of knitted fabric is higher than other fabrics at 39 per cent per year on average since 1965.

Table 12.10 UK foam backed and foam laminated fabric by volume, 1965–68

Year	*Total fabric* m sq yds	*Knitted fabric* m sq yds	*Percentage of total fabric knitted*	*Knitted fabric index* 1965=100
1965	25·6	7·3	28	100
1966	28·1	10·7	38	147
1967	30·6	11·9	39	163
1968	51·4	19·7	38	271

Source: Board of Trade Business Monitor
Note: Excluding backing with rubber foam and rubber foam sandwiches

The use of foam backing and laminating for apparel has been growing less fast than for other uses, including footwear. The respective growth rates are 9 per cent and 77 per cent per year on average since 1965. In 1968, 26·6 million square yards of foam backed fabrics were produced for apparel uses. Of this, 45 per cent was sandwich fabric as opposed to single fabric. In 1965 94 per cent of foam laminates was used for apparel. By 1968 this had dropped to 77 per cent, due to the very great growth in the demand for foam laminates for footwear and other uses.

Of the 7·9 million square yards of foam laminates produced for other uses, 61 per cent was sandwich fabric.

The data used in the above analysis was derived from voluntary returns made to the Board of Trade by firms in the United Kingdom known to be engaged in the foam backing or foam laminating of fabrics. 16 firms made the returns, compared with 7 which replied to the 1963 Census of Production, declaring that they undertook the backing of fabric with plastic foam to a total of £0·5 million in 1963.

Fabric to fabric bonding

Bonded fabrics are defined as fabric to fabric laminates produced by using adhesives or a mini-foam laminating system.

About 33 million square yards of face and lining fabrics were used in 1968, yielding an output of 16 million square yards of bonded fabric. This may be compared with an output of some 12 million square yards in 1967. The statistics are particularly weak for earlier years, so that a true growth rate cannot be calculated. About half the fabric used was knitted. It is not known how much knitted fabric was used in the face cloth as opposed to the lining.

Output in 1968 was 16 million square yards, of which 9·7 million square yards (60 per cent) were used for apparel.

Unofficial estimates vary widely. All that can be said with any degree of certainty is that total production is rising. Board of Trade Business Monitor statistics in general provide a useful guide to trends but, in many cases, the level of production at any time is suspect.

Today, more acetate warp knit fabrics than nylon warp knits are used for garment lining by the UK industry, according to trade sources. But growth in the use of bonded techniques in upholstery and household laminates will be boosted by the use of polyamides. Use by the British motor industry of bonded warp knit seat covers is another potential growth sector.

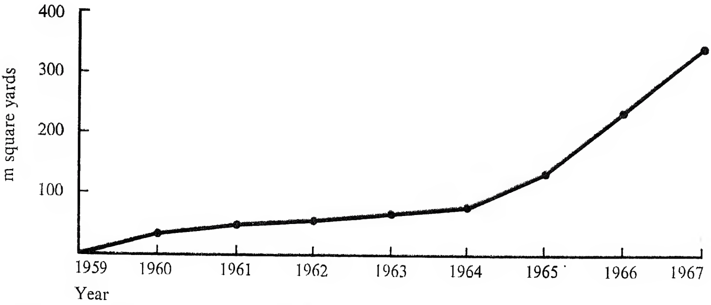
Future prospects of laminating and bonding

The growth of the various types of fabric laminates continues, and bonding techniques are constantly being improved. Looking back to the beginning of this business, which was in the early 1960s, the prospects have fluctuated between extremes of great optimism and utter dejection. This latter condition was particularly evident in the first few years, but textile lamination is now firmly established and the optimists have been proved correct. In the apparel uses, the emphasis has been changing from foam lamination to fabric to fabric bonding, as the figures given previously indicate quite clearly. Very significantly, the fibre producers have recognised the importance of lamination and given it their blessing in promotional and quality control programmes

programmes—Du Pont's 'Couture Jersey' scheme, ICI/Amcel's 'Eurobond' scheme and coverage within Monsanto's 'Wear Dated' scheme.

Growth in the USA has followed the pattern shown in Chart 5.

Chart 5 Growth of bonding and laminating in the USA



Source: AIC estimate based on press reports

Growth in the United Kingdom is expected to follow a similar pattern; the UK industry is now poised in the position of the USA industry in 1964—just where growth really gathers momentum.

Lamination has two major contributions to make:

the creation of new and exciting fabrics in their own right;

the revolutionising of the technology of garment manufacture.

The need for constructional stability in textiles has traditionally tended to conflict with freedom of design. Lamination ends this conflict. It provides the garment manufacturer at all times with consistent, stable, non-fraying fabrics. Making-up skills are simplified, and the process towards a rationalised 'engineering' approach to garment manufacture is assisted.

Laminated brushed nylons are firmly established for primary upholstery. Probably the fastest growing part of the whole lamination market is the use of bonded fabrics for curtains—especially ready-to-hang curtains. As far as lamination is concerned, this is an area where the UK trade is ahead of the USA. The potential volume is enormous—it has been estimated that about 170 million square yards of fabric are sold annually for curtains. There is room for the use of mini-foamed or 'coined' circular knitted fabrics with their patterns and surface effect, as well as the brushed warp knits which have so far dominated the market.

A total of 75 million square yards of dress fabric are sold for home sewing in the UK and hardly a yard is laminated—yet. In contrast, the laminated yardage sold for this purpose in the USA is very great (about 50 million square yards), and the advantages to the home seamstress of a stable self-lined fabric are obvious. The main hurdle in the UK is the retail buyer, on the grounds of price. This objection can be challenged, because lamination makes it feasible for amateurs to use types of fabric and make types of garments which most are at present reluctant to attempt.

SLIVER KNITTING

The pile fabric market is growing. A new segment of the knitting industry has been established by the installation of sliver knit high pile knitting machines. The current fibre consumption in this sector is about 7 million pounds per year. It is thought that woven pile fabrics still hold more than half the market of about £20 million of synthetic fibre a year.

Available information is inadequate for the forecasting of trends. There is reported to be a potential market for sliver knitted synthetic grass in football stadia and sports grounds in the USA. Undoubtedly further research is required, before a decisive judgment can be made about this.

THE UK's IMPORTS AND EXPORTS OF KNITTED FABRIC

Knitted fabric imports

In the four years following 1964, imports of warp and weft knitted fabric increased by six times, the majority of this growth taking place in 1968 (see Table 12.11). The value of imports was

£7 million in 1968. Imports of fabrics produced wholly of man-made fibres were 61 per cent by weight in 1967 (see Table 12.12).

Table 12.11 UK imports of knitted or crocheted fabrics not elastic nor rubberised, 1962–68

	Quantity				
Year	*Area of man-made fabrics* m sq yds	*Weight of other fabrics* tons	*Value* £m	*Value index* 1962=100	*Percentage man-made fibre* by value
1962	3·8	1,044	2·9	100	28
1963	3·2	1,322	3·5	121	23
1964	4·1	1,376	3·8	131	30
1965	5·6	927	2·7	93	35
1966	5·9	821	3·2	110	53
1967	13·4	771	4·7	162	69
1968	34·7	623	7·0	241	86

Source: HM Customs and Excise
Notes:
Import classification 653.7.
The last column shows the ratio of value of man-made fibre imports to the total value of knitted fabric imports.

Table 12.12 UK imports of knitted or crocheted fabrics, analysis by fibre, 1967

Fibre	*Weight* thousand cwt	*Value* £m
Wholly of man-made fibres		
continuous synthetic fibres	15·5	2·1
discontinuous synthetic fibres (spun) yarn	2·5	0·3
regenerated fibres	6·8	0·9
Other descriptions		
cotton	3·8	0·2
other material	11·7	1·2
Total	40·4	4·7

Source: HM Customs and Excise

As can be seen in Table 12.13, the USA and the Irish Republic are the two major suppliers of knitted fabric, supplying 24 per cent by volume and 18 per cent respectively of total imports in 1967.

Table 12.13 UK imports of knitted fabric by principal suppliers, 1967

Country	*Quantity* lbs	*Value* £m	*Value per lb* £
Hong Kong	0·1	0·04	0·30
Eire	0·8	0·8	0·99
USA	1·1	1·3	1·15
Belgium	0·09	0·1	1·14
Holland	0·2	0·2	1·01
Italy	0·09	0·1	1·59
Canada	0·07	0·07	1·03
West Germany	0·5	0·6	1·09
France	0·4	0·3	0·76
Austria	0·4	0·4	1·03
Denmark	0·2	0·3	1·52
Switzerland	0·2	0·3	1·71
Total all countries	4·5	4·7	1·04

Source: HM Customs and Excise

Knitted fabric exports

Tables 12.14 to 12.17 are based on the two principal sources of export statistics, HM Customs and Excise and the Board of Trade's Business Monitor. There is a small discrepancy between the figures from these sources. The error, though quite small, is now growing. It was about 15 per cent in 1967.

A comparison of Table 12.14 with Table 12.15 shows that the estimates made by the industry are low compared with HM Customs' data.

Table 12.14 UK exports of knitted and crocheted fabrics not elastic nor rubberside, 1959–68

Year	*Value* £m	*Percentage of man-made fibre*
1959	2·9	30
1960	3·3	33
1961	3·9	34
1962	4·1	47
1963	4·3	58
1964	4·6	69
1965	4·9	69
1966	5·9	71
1967	7·2	73
1968	11·4	77

Source: HM Customs and Excise

12.15 UK exports of knitted fabric, 1962–68

Year	*Warp knitted* £m	*Weft knitted* £m	*Total* £m	*Percentage warp*
1962	2·2	1·6	3·8	58
1963	2·6	2·1	4·7	55
1964	1·8	2·7	4·5	40
1965	2·2	3·5	5·7	39
1966	1·9	3·0	4·9	39
1967	2·0	4·1	6·1	33
1968	2·7	7·1	9·8	28

Source: Business Monitor
Notes:
Exports declared by firms employing 25 or more persons responding to enquiry.
1962 to 1966=February to January of following year;
1967 and 1968=calendar year.

Table 12.14 records a steady growth in exports of some 12 per cent per year on average in the period 1962 to 1967, producing an expansion of about three-quarters. In 1968 exports rose by 58 per cent.

The expansion has been mainly confined to weft knitted fabric, which increased 2½ times in value during the five years 1962 to 1967. Warp knitted fabric remained static in value until 1968 at about £2 million per year. Production prices reported in 1967 had fallen to 74 per cent of those reported in 1962. Thus the volume of warp knitted fabric exports has increased during this period, although in terms of value the proportion of warp knitted fabric fell from 58 per cent in 1962 to 28 per cent in 1968.

Table 12.16 UK exports of knitted and crocheted fabric, analysis by fibre, 1967 and 1968

Fibre	*Quantity** 1968	*Quantity** 1967	*1967 Growth index* 1962=100
Wool	1,587	1,040	89
Cotton:			
Grey, unbleached	5,576	9,268	69
White, bleached, dyed	1,751	986	45
Man-made fibres:			
Polyamide	8,393	6,976	258
Other	20,825	16,300	241
Other (including mixtures)	1,423	1,370	215

Source: HM Customs and Excise.
Note:
*Quantities measured in thousand linear yards with the exception of man-made fibre fabrics, which are measured in thousand square yards.

The percentage of man-made fibre in the UK's exports of knitted fabrics rose steadily up to 1964, when it stabilised at about 70 per cent, until 1968 boosted it to 77 per cent. Nylon accounts for about a quarter of this total.

An analysis of knitted fabric exports by fibre shows that natural fibres are declining, especially cotton, but that exports of man-made fibre fabrics have increased by 2½ times in the period 1962 to 1967 (see Table 12.16).

Table 12.17 gives an analysis of the UK's exports of knitted fabric in 1967. The table lists the ten principal customers ranked by the value of the exports. These ten countries took 73 per cent of the UK's exports in this sector. It will be seen that some countries only take products of a single fibre in any quantity. For example 81 per cent of the UK's exports to South Africa were 'man-made fibre excluding nylon' and 75 per cent of the UK's exports to the USSR were wool fabric. 75 per cent of the UK's exports of wool and of 'man-made fibre other than nylon' go to the ten listed countries.

Table 12.17 UK exports of knitted fabrics by principal customers, 1967

Country	*Cotton* £m	*Wool* £m	*Nylon* £m	*Other man-made fibre* £m	*Total* £m
South Africa	*	0·09	0·10	0·75	0·93
USSR	*	0·50	0·19	*	0·70
USA	0·02	0·08	0·05	0·54	0·70
Eire	0·16	0·10	0·27	0·25	0·78
Western Germany	0·01	0·02	0·02	0·46	0·50
Hong Kong	0·06	0·01	0·12	0·24	0·43
Sweden	0·02	0·10	0·04	0·24	0·39
Australia	0·01	0·02	0·04	0·27	0·34
Canada	0·01	0·07	0·02	0·11	0·22
Japan	*	0·14	*	0·07	0·21
Total all countries	·45	1·51	1·27	3·93	7·16

Source: HM Customs and Excise
Note: *Negligible

Forecasts of the UK's imports and exports of knitted fabrics

A large part of international trade in fabric arises because exporters can provide types of cloth which the home manufacturer does not produce or cannot sell at competitive prices. This is evident in the specialisation by major exporting countries. Such specialisation makes competition between exporting countries far from perfect, and suggests that examination of trends in consumption, production and imports of each type of cloth would be necessary in order to arrive at a full understanding of the causes governing UK exports. In addition, textile companies are becoming increasingly international, and this flexibility makes it even more difficult to forecast international trade developments.

We have therefore limited ourselves in this study to using the forecasts contained in the DEA's *The Task Ahead.* These indicate that for textiles as a whole between 1967 and 1972, imports will grow at 4 per cent per annum and exports will grow at 3 per cent per annum. We have assumed that these same growth rates will persist through the forecast period of this study. We then analysed how the proportion of knitted fabric has been changing, and estimated alternative values for the proportion of knitted fabric in 1973 and 1978 (see Table 12.18).

Table 12.18 UK imports and exports of knitted fabrics, 1962–78

	EXPORTS			*IMPORTS*		
Year	*Total fabric exports* £m	*Knitted fabric exports* £m	*Proportion knitted fabric* %	*Total fabric imports* £m	*Knitted fabric imports* £m	*Proportion knitted fabric* %
1962	127·4	4·1	3·2	78·3	2·9	3·7
1963	132·6	4·3	3·2	85·0	3·5	4·1
1964	141·3	4·6	3·3	103·4	3·8	3·7
1965	143·4	4·9	3·4	82·7	2·7	3·3
1966	131·4	5·9	4·5	82·5	3·2	3·9
1967	125·7	7·2	5·7	102·5	4·7	4·6
1968	145·3	11·4	7·8	124·5	7·0	5·6
1973	170	24·5±4·0	14·5±2·5	152	14·5±3·0	9·5±2·0
1978	195	42·0±7·0	21·5±3·5	185	25·0±5·5	13·5±3·0

Source:
HM Customs and Excise (1962–68)
AIC Estimates (1973 and 1978)

In recent years Board of Trade statistics indicate that about one third of total knitted fabric exports have been warp knitted (see Table 12.15). No information is available about the warp and weft proportions of imports.

Table 12.19 Forecasts of UK imports and exports of knitted fabrics

		Exports £m	*Imports* £m
1968		11	7
1973	Lower	21	12
	Most likely	25	15
	Upper	29	18
1978	Lower	35	19
	Most likely	42	25
	Upper	49	31

Table 12.20 Forecast of UK trade balance in knitted fabrics

	1968 £m	1973 £m	1978 £m
Actual	+4		
Pessimistic		+ 6	+10
Most likely		+10	+17
Optimistic		+14	+24

Section III Appendices

Appendix 1 Major world markets for hosiery and knitwear

The purpose of this appendix is to illustrate more vividly the information shown in Table 2.2 in Chapter 2, and to give brief information about Customs duties, other taxes and quotas.

The appendix therefore contains a page for each of the following countries and trade blocks:

Belgium and Luxembourg
France
West Germany
Italy
Netherlands
EEC
Austria
Denmark
Norway
Portugal
Sweden
Switzerland
EFTA (excluding UK)
UK
Eire
Spain
Canada
USA
Japan

The charts on each page illustrate, for the country concerned:

Total consumption of knitted or crocheted clothing and accessories 1965, 1966 and 1967

Total imports of knitted or crocheted clothing and accessories 1965, 1966 and 1967

Imports from the UK of knitted or crocheted clothing and accessories 1965, 1966 and 1967

Each chart is drawn so that the area indicates the relationship of the volume of consumption to imports, as quoted in the table given directly below the chart.

For the convenience of readers, the same information is repeated in tabular form, together with a 1967 Growth Index (based on 1964=100); the tables also show:

Imports as a percentage of total consumption,

Imports from the UK as a percentage of total consumption,

Imports from the UK as a percentage of all imports.

The information about Customs duties, other taxes, quotas etc is necessarily summarised and simplified. It is intended only as a guide, and a manufacturer intending to export to any country would be well advised to seek more detailed information from the export services branch of the Board of Trade.

Because the information about EEC customs duties is too lengthy to repeat on each member country's page, it is set out here:

All EEC countries apply the Common External Tariff (CET) to imports from all countries outside the EEC and its associated territories. Goods passing between member countries of the EEC are not subject to customs duties, but are subject to the taxes (described separately).

The CET is being modified under the Kennedy Round, so that rates of duty on many goods are due to change on 1 January, 1970, 1971 and 1972.

The CET and the basis on which it is calculated are somewhat complicated, but the following extracts (Table A1.1) should be helpful as a preliminary guide.

Table A1.1 Extracts from EEC common external tariff

		Duty rates applicable as from			
Tariff heading	*Description of goods*	1 July 1968 %	1 January 1970 %	1 January 1971 %	1 January 1972 %
60.01	Knitted or crocheted fabric, not elastic nor rubberised:				
	A Of wool or of fine animal hair	14·8	14·2	13·6	13
	B Of man-made textile fibres	14	13*	13*	13*
	C Of other textile materials	15·6	14*	14*	14*
60.02	Gloves, mittens and mitts, knitted or crocheted, not elastic nor rubberised	22·4	21·6	20·8	20
60.03	Stockings, under stockings, socks, ankle-socks, sockettes and the like, knitted or crocheted, not elastic nor rubberised	18·4	16·6	14·8	13
60.04	Under garments, knitted or crocheted, not elastic nor rubberised:				
	A Of cotton	18·3	17*	17*	17*
	B Of other textile materials	19·4	18·6	17·8	17
60.05	Outer garments and other articles, knitted or crocheted, not elastic nor rubberised:				
	A Outer garments and clothing accessories:				
	i Jerseys and pullovers, containing at least 50% by weight of wool and weighing 600 grams or more per article	16·8	14·7	12·6	10·5
	ii Other	19·8†	19·2	18·6	18
	B Other	14·8	14·2	13·6	13
60.06	Knitted or crocheted fabric and articles thereof, elastic or rubberised (including elastic knee-caps and elastic stockings):				
	A Knitted or crocheted fabric	12	11*	11*	11*
	B Other	18·4†	17·6	16·8	16

Notes

*Subject to acceptance of the extension of the long term Arrangement on cotton textiles.

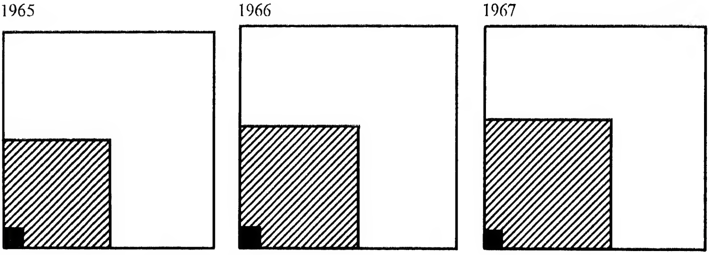
†Babies' outer garments and bathing suits now at 16·8 per cent until 30 June 1970.

'Elastic' means consisting of textile materials combined with rubber threads; 'Rubberised' means impregnated, coated or covered with rubber, or made with textile thread coated or impregnated with rubber.

CIF invoice prices are the normal basis for calculation of EEC Customs duties.

Belgium and Luxembourg

Chart A 1
Consumption, imports and UK share of imports for clothing and accessories, knitted or crocheted



Total area represents total consumption
Shaded area represents total imports
Solid area represents imports from the UK

Scale: Areas proportional

Table A1.2 Clothing and accessories, knitted or crocheted

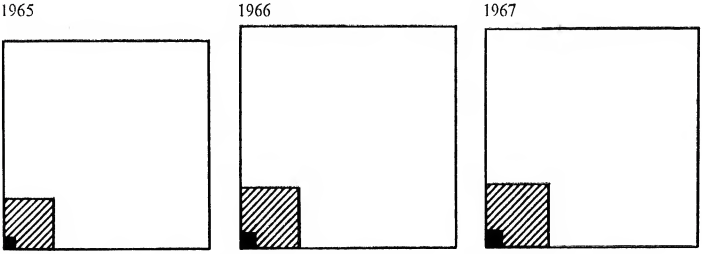
	1965	*1966*	*1967*	*1967 growth index* 1964=100
Total consumption ($m)	144	152	152	117
Total imports ($m)	38	47	51	153
Imports from UK ($m)	1·16	1·26	1·09	100
Imports as % of total consumption	26·4	30·8	33·5	
Imports from UK as % of total consumption	0·8	0·8	0·7	
Imports from UK as % of all imports	3·1	2·7	2·1	

Source: OECD

Customs duties:
See note on EEC Common External Tariff (page 112)
Other taxes:
Belgium
From 1 January 1970, added value tax; a standard rate of 18 per cent.
Luxembourg
From 1 January 1970, added value tax; at 8 per cent.
Import licences
Required for imports from UK of goods under heading 60.03 (viz stockings etc).

France

Chart A 2
Consumption, imports and UK share of imports for clothing and accessories, knitted or crocheted



Total area represents total consumption
Shaded area represents total imports
Solid area represents imports from the UK

Scale: Areas proportional

Table A1.3 Clothing and accessories, knitted or crocheted

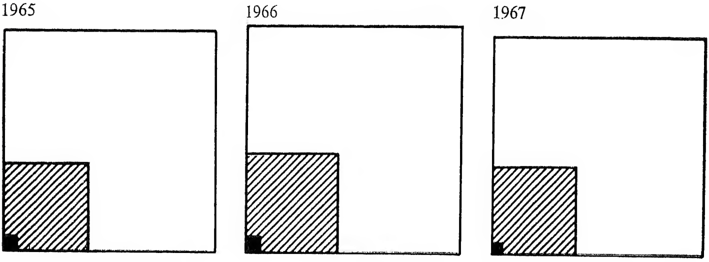
	1965	*1966*	*1967*	*1967 growth index* 1964=100
Total consumption ($m)	762	879	856	108
Total imports ($m)	45	64	72	151
Imports from UK ($m)	2·42	3·85	4·02	144
Imports as % of total consumption	6·0	7·3	8·4	
Imports from UK as % of total consumption	0·3	0·4	0·5	
Imports from UK as % of all imports	5·3	6·1	5·6	

Source: OECD

Customs duties:
See note on EEC Common External Tariff (page 112)
Other taxes:
Added value tax of 23·99 per cent (also payable on goods produced in France)
Small 'parafiscal' tax on textiles
Technical visa:
Required for imports from UK under heading 60.03 (viz stockings etc).

Western Germany

Chart A 3
Consumption, imports and UK share of imports for clothing and accessories, knitted or crocheted



Total area represents total consumption
Shaded area represents total imports
Solid area represents imports from the UK

Scale: Areas proportional

Table A1.4 Clothing and accessories, knitted or crocheted

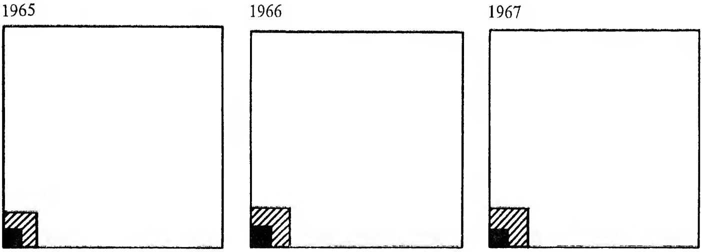
	1965	*1966*	*1967*	*1967 growth index* 1964=100
Total consumption ($m)	1,222	1,298	1,195	107
Total imports ($m)	187	232	187	140
Imports from UK ($m)	4·71	5·36	3·64	93
Imports as % of total consumption	15·2	17·8	15·7	
Imports from UK as % of total consumption	0·4	0·4	0·4	
Imports from UK as % of all imports	2·5	2·3	1·9	

Source: OECD

Customs duties:
See note on EEC Common External Tariff (page 112).
Other taxes:
Import turnover tax of 11 per cent (temporarily rebated at the rate of 4 per cent).
Added value tax applicable in certain circumstances.
Certificate of origin:
Required for all woollen clothing and also, under heading 60.03, for goods of cotton or synthetic materials.

Italy

Chart A 4
Consumption, imports and UK share of imports for clothing and accessories, knitted or crocheted



Total area represents total consumption
Shaded area represents total imports
Solid area represents imports from the UK

Scale: Areas proportional

Table A1.5 Clothing and accessories, knitted or crocheted

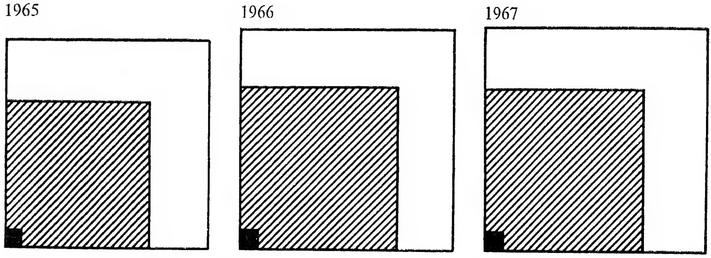
	1965	*1966*	*1967*	*1967 growth index* 1964=100
Total consumption ($m)	502	481	494	101
Total imports ($m)	12	15	15	111
Imports from UK ($m)	4·11	4·57	4·12	83
Imports as % of total consumption	2·4	3·2	3·0	
Imports from UK as % of total consumption	0·8	0·9	0·8	
Imports from UK as % of all imports	34·3	30·0	28·0	

Source: OECD

Customs duties:
See note on EEC Common External Tariff (page 112)
Other taxes:
Administration fee, stamp dues and statistical dues, totalling approximately 1 per cent of the cif value
General turnover tax (also applied to goods produced in Italy) of 3·6 per cent (not due on importation)
Compensatory tax of 6 per cent of gross landed value (due on most categories of hosiery and knitwear) temporarily increased by varying rates of up to 1·9 per cent.

Netherlands

Chart A 5
Consumption, imports and UK share of imports for clothing and accessories, knitted or crocheted



Total area represents total consumption
Shaded area represents total imports
Solid area represents imports from the UK

Scale: Areas proportional

Table A1.6 Clothing and accessories, knitted or crocheted

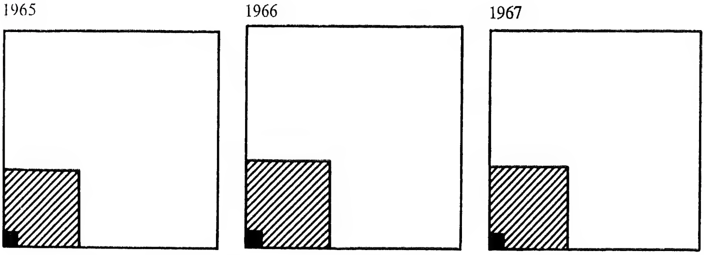
	1965	*1966*	*1967*	*1967 growth index* 1964=100
Total consumption ($m)	208	224	236	118
Total imports ($m)	95	123	122	143
Imports from UK ($m)	1·7	1·85	2·11	153
Imports as % of total consumption	45·6	56·0	51·6	
Imports from UK as % of total consumption	0·8	0·8	0·9	
Imports from UK as % of all imports	1·8	1·5	1·7	

Source: OECD

Customs duties:
See note on EEC Common External Tariff (page 112)
Other tax:
Added value tax of 12 per cent on duty paid value plus cost of inland freight to consignee's address; (payable also on goods produced in Netherlands).

EEC Total

Chart A 6
Consumption, imports and UK share of imports for clothing and accessories, knitted or crocheted



Total area represents total consumption
Shaded area represents total imports
Solid area represents imports from the UK

Scale: Areas proportional

Table A1.7 Clothing and accessories, knitted or crocheted

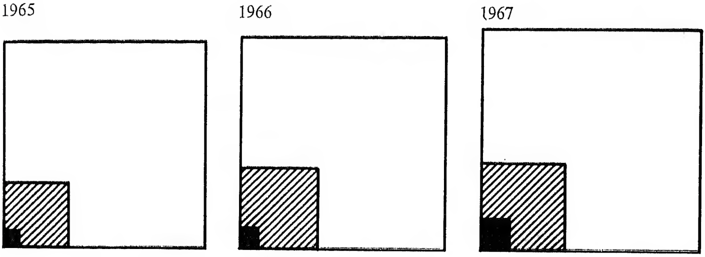
	1965	*1966*	*1967*	*1967 growth index* 1964=100
Total consumption ($m)	2,838	3,034	2,933	108
Total imports ($m)	377	480	447	143
Imports from UK ($m)	14·09	16·90	14·97	106
Imports as % of total consumption	13·3	15·8	15·2	
Imports from UK as % of total consumption	0·5	0·6	0·5	
Imports from UK as % of all imports	3·7	3·5	3·4	

Source: OECD

Customs duties:
See note on EEC Common External Tariff (page 112).
Other taxes:
See notes on each member country.

Austria

Chart A 7
Consumption, imports and UK share of imports for clothing and accessories, knitted or crocheted



Total area represents total consumption
Shaded area represents total imports
Solid area represents imports from the UK

Scale: Areas proportional

Table A1.8 Clothing and accessories, knitted or crocheted

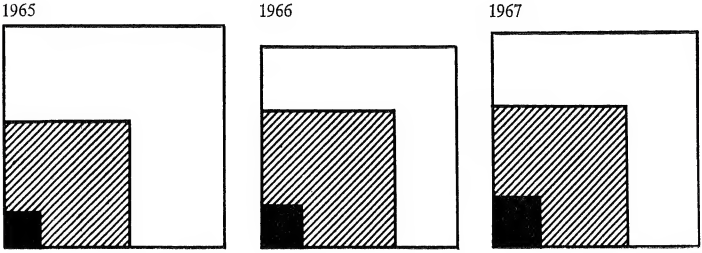
	1965	*1966*	*1967*	*1967 growth index* 1964=100
Total consumption ($m)	104	113	119	116
Total imports ($m)	11	16	19	199
Imports from UK ($m)	0·82	1·28	2·37	323
Imports as % of total consumption	11·0	13·7	16·0	
Imports from UK as % of total consumption	0·8	1·1	2·0	
Imports from UK as % of all imports	7·2	8·2	12·5	

Source: OECD

Customs duties:
Nil on imports of EFTA origin
22 per cent on most hosiery and knitwear of non EFTA origin
Other taxes:
Turnover equalisation tax on duty paid value of imports at rate of 13 per cent on heading 60.03 and 11·8 per cent on headings 60.04 and 60.05
Turnover tax, if goods are sold again, at rate of 2 per cent when goods go to retailer and 5·5 per cent at any other stage
Foreign trade promotion tax at rate of 0·3 per cent of cif value.

Denmark

Chart A 8
Consumption, imports and UK share of imports for clothing and accessories, knitted or crocheted



Total area represents total consumption
Shaded area represents total imports
Solid area represents imports from the UK

Scale: Areas proportional

Table A1.9 Clothing and accessories, knitted or crocheted

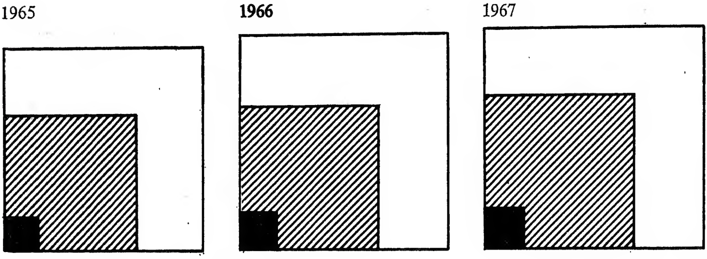
	1965	*1966*	*1967*	*1967 growth index* 1964=100
Total consumption ($m)	60	48	56	92
Total imports ($m)	20	22	24	131
Imports from UK ($m)	1·77	2·21	2·88	199
Imports as % of total consumption	33·1	46·5	42·9	
Imports from UK as % of total consumption	2·9	4·6	5·1	
Imports from UK as % of all imports	8·9	10·0	11·7	

Source: OECD

Customs duties:
Nil on imports of EFTA origin
Rates varying from 15 per cent to 22·5 per cent on most hosiery and knitwear of non EFTA origin
Other taxes:
Added value tax of 9 per cent on duty paid value at time of importation (or 12·5 per cent if importation is by unregistered enterprise)
Added value tax of 12·5 per cent on further transactions within Denmark.

Norway

Chart A 9
Consumption, imports and UK share of imports for clothing and accessories, knitted or crocheted



Total area represents total consumption
Shaded area represents total imports
Solid area represents imports from the UK

Scale: Areas proportional

Table A1.10 Clothing and accessories, knitted or crocheted

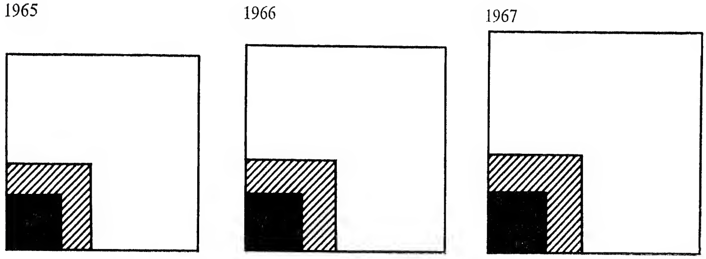
	1965	*1966*	*1967*	*1967 growth index* 1964=100
Total consumption ($m)	56	65	68	128
Total imports ($m)	25	28	32	135
Imports from UK ($m)	1·59	2·05	2·30	154
Imports as % of total consumption	45·4	43·6	47·7	
Imports from UK as % of total consumption	2·8	3·2	3·5	
Imports from UK as % of total imports	6·5	7·2	7·1	

Source: OECD

Customs duties:
Nil on imports of EFTA origin
Rates varying from 16·8 per cent to 20 per cent on most hosiery and knitwear of non EFTA origin
Other taxes:
Added value tax; the proposed standard rate is 20 per cent.

Portugal

Chart A 10
Consumption, imports and UK share of imports for clothing and accessories, knitted or crocheted


1965 1966 1967

Total area represents total consumption
Shaded area represents total imports
Solid area represents imports from the UK

Scale: Areas proportional

Table A1.11 Clothing and accessories, knitted or crocheted

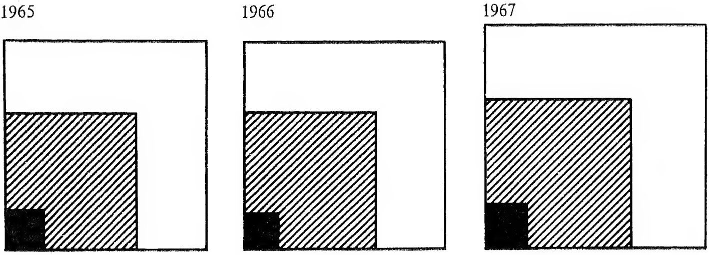
	1965	*1966*	*1967*	*1967 growth index* 1964=100
Total consumption ($m)	7·0	8·0	9·0	na
Total imports ($m)	1·40	1·66	1·78	425
Imports from UK ($m)	0·58	0·65	0·67	491
Imports as % of total consumption	20·0	20·4	20·0	
Imports from UK as % of total consumption	8·3	8·1	7·4	
Imports from UK as % of all imports	41·4	39·0	37·2	

Source: OECD

Customs duties:
Rates of 700 or 880 escudos per kilogram (silk and synthetic fibres) and 160 or 180 escudos per kilogram (wool or other natural fibres) are payable on most categories of hosiery and knitwear, but are reduced by 40 per cent, 50 per cent or 60 per cent for goods of EFTA origin
Other taxes:
Turnover tax of 7 per cent on wholesale value plus surcharge of Esc. 2.40 on certain categories
Import licence:
Required for all imports exceeding Esc. 2,500 in cif value.

Sweden

Chart A 11
Consumption, imports and UK share of imports for clothing and accessories, knitted or crocheted



Total area represents total consumption
Shaded area represents total imports
Solid area represents imports from the UK

Scale: Areas proportional

Table A1.12 Clothing and accessories, knitted or crocheted

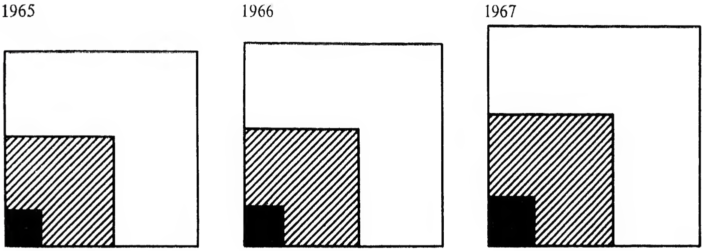
	1965	*1966*	*1967*	*1967 growth index* 1964=100
Total consumption ($m)	137	135	153	118
Total imports ($m)	55	55	67	139
Imports from UK ($m)	4·83	4·28	5·87	147
Imports as % of total consumption	40·4	41·0	43·8	
Imports from UK as % of total consumption	3·5	3·2	3·8	
Imports from UK as % of all imports	8·7	7·7	8·8	

Source: OECD

Customs duties:
Nil on imports of EFTA origin
Rates varying from 10 per cent to 25 per cent on most hosiery and knitwear of non EFTA origin
Other tax:
Added value tax at effective rate of 11·11 per cent on cif price at point of importation.

Switzerland

Chart A 12
Consumption, imports and UK share of imports for clothing and accessories, knitted or crocheted



Total area represents total consumption
Shaded area represents total imports
Solid area represents imports from the UK

Scale: Areas proportional

Table A1.13 Clothing and accessories, knitted or crocheted

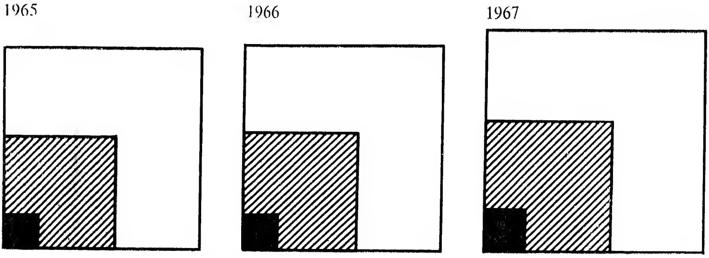
	1965	*1966*	*1967*	*1967 growth index* 1964=100
Total consumption ($m)	127	141	165	133
Total imports ($m)	42	48	58	133
Imports from UK ($m)	4·75	5·52	7·78	168
Imports as % of total consumption	33·0	35·1	35·2	
Imports from UK as % of total consumption	3·7	3·9	4·7	
Imports from UK as % of all imports	11·4	11·4	13·4	

Source: OECD

Customs duties:
Nil on imports of EFTA origin
Varying rates on imports of non EFTA origin
Other taxes:
Turnover tax, normally at rate of 5·4 per cent of wholesale invoice value
Statistical tax of 3 per cent of the amount of the customs charges.

EFTA Total (excluding UK)

Chart A 13
Consumption, imports and UK share of imports for clothing and accessories, knitted or crocheted



Total area represents total consumption
Shaded area represents total imports
Solid area represents imports from the UK

Scale: Areas proportional

Table A1.14 Clothing and accessories, knitted or crocheted

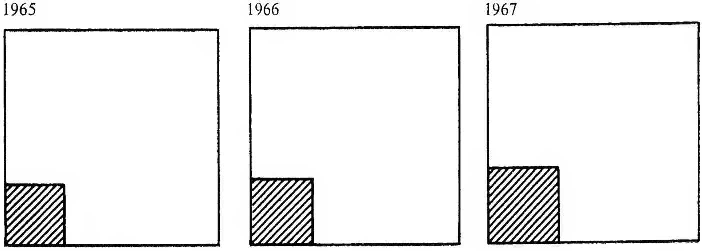
	1965	*1966*	*1967*	*1967 growth index* 1964=100
Total consumption ($m)	491	510	570	120 (est)
Total imports ($m)	155	171	203	141
Imports from UK ($m)	14·34	15·97	21·87	176
Imports as % of total consumption	31·6	33·6	35·6	
Imports from UK as % of total consumption	2·9	3·1	3·8	
Imports from UK as % of all imports	9·2	9·3	10·6	

Source: OECD

Customs duties:
See notes on each member country
Other taxes:
See notes on each member country.

United Kingdom

Chart A 14
Consumption and imports for clothing and accessories, knitted or crocheted



Total area represents total consumption
Shaded area represents total imports

·*Scale:* Areas proportional

Table A1.15 Clothing and accessories, knitted or crocheted

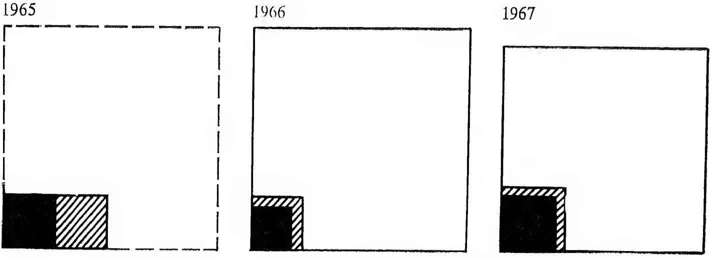
	1965	*1966*	*1967*	*1967 growth index* 1964=100
Total consumption ($m)	784	801	811	107
Total imports ($m)	60	70	93	115
Imports from UK ($m)	—	—	—	—
Imports as % of total consumption	7·7	8·7	11·4	
Imports from UK as % of total consumption	—	—	—	—
Imports from UK as % of all imports	—	—	—	—

Source: OECD

Customs duties:
Nil on imports from EFTA and Eire
Rate varies between 17½ per cent and 30 per cent depending on item from other areas (Commonwealth rate is 85–90 per cent of full rate for man-made fibre goods; woollen products from commonwealth countries enter duty free and without quota).
Other taxes:
Purchase tax is 13¾ per cent
No quota restrictions on hosiery and knitwear except from Japan
Import deposits are 50 per cent of cif value and are rebated after 6 months
Certificate of origin:
Required in all cases.

Eire

Chart A 15
Consumption, imports and UK share of imports for clothing and accessories, knitted or crocheted



Total area represents total consumption Total consumption not available for 1965
Shaded area represents total imports
Solid area represents imports from the UK
Note: in 1965 virtually all imports were from the UK
Scale: Areas proportional

Table A1.16 Clothing and accessories, knitted or crocheted

	1965	*1966*	*1967*	*1967 growth index* 1964=100
Total consumption ($m)	na	53	44	na
Total imports ($m)	3	3	4·3	130
Imports from UK ($m)	2·69	2·48	3·71	140
Imports as % of total consumption	na	5·9	9·7	
Imports from UK as % of total consumption	na	4·7	8·4	
Imports from UK as % of all imports	82·0	85·4	86·5	

Source: OECD

Customs duties:

Import full rate approximately 30 per cent to 60 per cent preferential rates for Commonwealth, South African, Canadian, UK and Northern Ireland goods

Other taxes:

Turnover tax charged at 2½ per cent on retail receipts, import licence not needed for UK goods or item 60.03 c(1)(b)

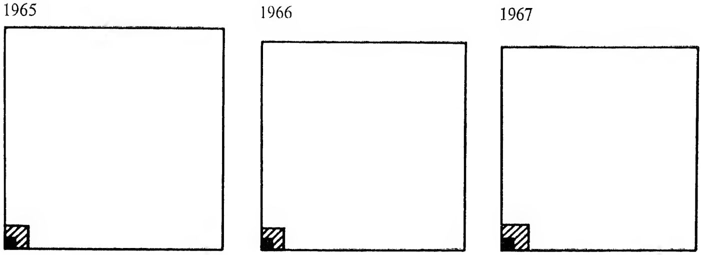
No restrictions on British goods, restrictions on some low cost country goods; quota on hose other than half-hose of 1·6m pairs (silk or man-made fibres not exceeding 50 per cent per dozen pairs).

Certificate of origin:

Required for preferential tariff rates.

Spain

Chart A 16
Consumption, imports and UK share of imports for clothing and accessories, knitted or crocheted



Total area represents total consumption
Shaded area represents total imports
Solid area represents imports from the UK

Scale: Areas proportional

Table A1.17 Clothing and accessories, knitted or crocheted

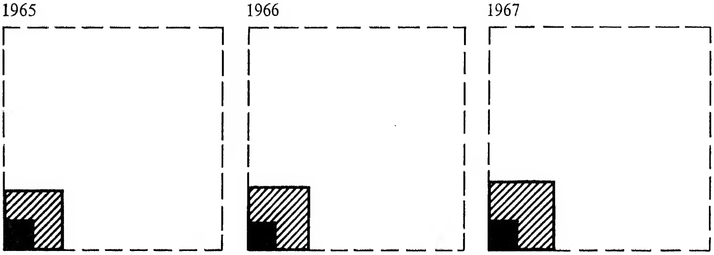
	1965	*1966*	*1967*	*1967 growth index* 1964=100
Total consumption ($m)	477	415	402	na
Total imports ($m)	5	5	7	240
Imports from UK ($m)	1·03	1·63	1·89	149
Imports as % of total consumption	1·0	1·2	1·8	
Imports from UK as % of total consumption	0·2	0·4	0·5	
Imports from UK as % of all imports	22·1	32·0	26·2	

Source: OECD

Customs duties:
Rates varying from 29 per cent to 38·5 per cent on cif value of imported hosiery and knitwear
Other tax:
Home compensation tax of 14 per cent on duty paid value
Quotas:
Certain categories of hosiery and knitwear are restricted by quota and require import licences.

Canada

Chart A 17
Imports and UK share of imports clothing and accessories, knitted or crocheted



Total consumption not available
Shaded area represents total imports
Solid area represents imports from the UK

Scale: Areas proportional

Table A1.18 Clothing and accessories, knitted or crocheted

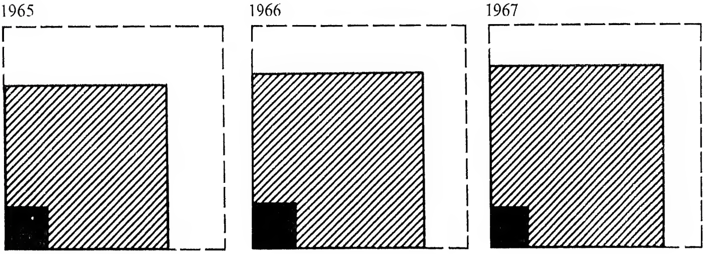
	1965	*1966*	*1967*	*1967 growth index* 1964=100
Total consumption ($m)	na	na	na	na
Total imports ($m)	27	32	36	153
Imports from UK ($m)	6·35	6·33	6·35	102
Imports as % of total consumption	na	na	na	
Imports from UK as % of total consumption	na	na	na	
Imports from UK as % of all imports	23·5	19·6	17·8	

Source: OECD

Customs duties:
20 per cent (normally on fob value) on most hosiery and knitwear imported from UK and practically all parts of the British Commonwealth. This rate of duty is normally subject to a discount of 10 per cent of the duty
Varying higher rates on imports from elsewhere
Other tax:
Sales tax of 12 per cent of the duty paid value (not always collected at time of importation)
Certificate of origin:
Required for manufactured goods benefitting from the British Preferential Tariff.

USA

Chart A 18
Imports and UK share of imports clothing and accessories, knitted or crocheted



Total consumption not available
Shaded area represents total imports
Solid area represents imports from the UK

Scale: Areas proportional

Table A1.19 Clothing and accessories, knitted or crocheted

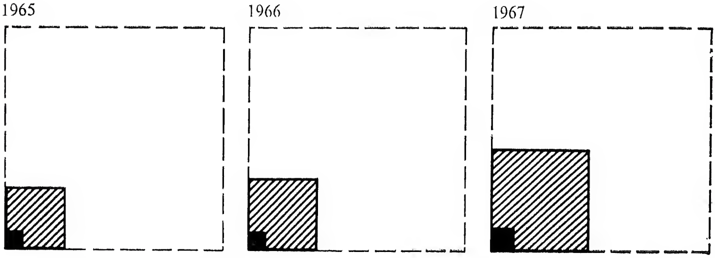
	1965	*1966*	*1967*	*1967 growth index* 1964=100
Total consumption ($m)	na	na	na	na
Total imports ($m)	222	256	271	163
Imports from UK ($m)	15·36	15·97	14·96	110
Imports as % of total consumption	na	na	na	
Imports from UK as % of total consumption	na	na	na	
Imports from UK as % of all imports	6·9	6·3	5·3	

Source: OECD

Customs duties:
Most favoured nation rates varying from 16 per cent to 50 per cent (normally on fob value) on hosiery and knitwear imported from UK and other 'free world' countries
Varying higher rates on imports from all communist countries except Poland and Yugoslavia.

Japan

Chart A 19
Imports and UK share of imports clothing and accessories, knitted or crocheted



Total consumption not available
Shaded area represents total imports
Solid area represents imports from the UK

Scale: Areas proportional

Table A1.20 Clothing and accessories, knitted or crocheted

	1965	*1966*	*1967*	*1967 growth index* 1964=100
Total consumption ($m)	na	na	na	na
Total imports ($m)	3	4	8	193
Imports from UK ($m)	0·29	0·25	0·40	114
Imports as % of total consumption	na	na	na	
Imports from UK as % of total consumption	na	na	na	
Imports from UK as % of all imports	10·5	6·9	5·2	

Source: OECD

Customs duties:
General rate of import duty is 20–30 per cent depending on item (GATT rate 17·6–26·4 per cent)
Other taxes:
Commodity tax at 20 per cent on category 60.02 if article includes pearls, precious or semi-precious stones, gold or platinum
Import licences required, but issued fully for hosiery and knitwear: normally deposit demanded before import licence issued
Certificate of origin:
Required to benefit on preferential rate of import duty.

Appendix 2 Method of forecasting UK consumer expenditure on clothing

1 METHOD

Our final forecast of UK consumer expenditure on clothing is set out in Table A2.1.

Table A2.1 Forecasts of growth in UK consumer and clothing expenditure

	Growth index (1968=100)		*Average annual growth rate* (%)		
	1973	1978	1968–73	1973–78	1968–78
Total consumer expenditure	114	133	2·6	3·3	2·9
Preliminary economic forecast of clothing expenditure	111	127	2·0	2·7	2·4
Final adjusted forecast of clothing expenditure	116	132	3·0	2·7	2·8

There were two basic steps in our method of forecasting clothing expenditure. The first was to produce a forecast solely on the basis of statistical analysis of past consumer behaviour. The second was to modify this forecast in the light of our consumer, market, industrial and technological research. This modification produced major changes in two garment groups—men's and boys' innerwear and women's and girls' innerwear, which in turn affected the total clothing expenditure forecasts.

We attempted to relate changes in clothing expenditure to changes in total consumer expenditure, relative price movements and trends in time, using the statistical technique of multi-variate analysis. However, the changes in the past had been too small to produce reliable conclusions except for the relationship between clothing expenditure and total consumer expenditure. This is a very stable relationship over the long term, with clothing expenditure increasing in absolute terms, but taking a slowly decreasing proportion of total expenditure.

Similarly, for expenditure on groups of garments within clothing, it was possible to find a reliable relationship between expenditure on a group of garments and total clothing expenditure. The logical sequence of the economic analysis was therefore:

Forecast total consumer expenditure

Forecast total clothing expenditure

Forecast expenditure on groups of garments

2 GROWTH IN TOTAL UK CONSUMER EXPENDITURE

The most important factor in forecasting consumer demand for clothing is the total spending power of the consumer. This, therefore, is the starting point of the forecasts.

To put the projections in perspective, Table A2.2 gives total consumer expenditure and its annual growth rates since 1947.

Table A2.2 Growth in UK total consumer expenditure

Five year period	*Average annual total consumer expenditure* £m	*1958 prices Average annual growth rate* %
1947–1952	12,700	0·5
1952–1957	14,007	3·2
1957–1962	16,301	3·2
1962–1967	19,070	2·9

Source: AIC estimates, based on National Income and Expenditure, HMSO

We have used the DEA's *The Task Ahead* as a basis for our forecasts of total consumer expenditure up to 1972.

There is a shortage of detailed longer term economic projections and no single authoritative study. We have therefore produced what is, in our opinion, the most likely forecast of consumer expenditure together with a range of possible alternatives.

The most likely forecast uses *The Task Ahead* annual average forecast of 2·4 per cent for 1967 to 1972. We have then taken 3¼ per cent as the average annual increase between 1972 and 1978. The lower and upper forecasts are based on *The Task Ahead* alternative growth rate of 2 per cent pa and 3·2 per cent pa respectively between 1967 and 1972. We have then extrapolated to 1978 using an annual average of 2¾ per cent pa for the lower forecast and 3½ per cent for the upper forecast.

Table A2.3 Alternative growth rate assumptions for total consumer expenditure

		Alternative growth rates 1968–1973					
		Lower		*Most likely*		*Upper*	
	Year	*1958 Constant prices*	*1968 Constant prices*	*1958 Constant prices*	*1968 Constant prices*	*1958 Constant prices*	*1968 Constant prices*
Consumer expenditure (£100m)	1973	229	299	235	307	244	319
	1978	262	343	276	361	290	379
Growth index 1968=100	1973	110·6		113·5		117·9	
	1978	126·6		133·3		140·1	
Average annual growth rate %	1962–73	2·0		2·6		3·3	
	1968–78	2·4		2·9		3·4	

The total consumer expenditure forecasts, which are shown in Table A2.3, are expressed in units of £100 million at both 1958 constant prices and 1968 constant prices. This reflects both the purpose for which the forecasts are required and also the confidence in the projections, since £100 million represents a little under one half of one per cent of total consumer expenditure.

Our estimate for total consumer expenditure in 1968 was £22,562 million at 1963 constant prices. See Table A2.4.

Table A2.4 Clothing expenditure as percentage of total consumer expenditure

	Expenditure £m *1958 prices*		
Year	*Total*	*Clothing*	*Percentage*
1946	12,061	758	6·3
1947	12,455	844	6·8
1948	12,436	928	7·5
1949	12,669	1,007	8·0
1950	13,018	1,046	8·0
1951	12,843	957	7·5
1952	12,780	949	7·4
1953	13,351	974	7·3
1954	13,896	1,046	7·5
1955	14,452	1,129	7·8
1956	14,577	1,178	8·1
1957	14,985	1,207	8·1
1958	15,362	1,206	7·8
1959	16,080	1,267	7·9
1960	16,735	1,359	8·1
1961	17,127	1,386	8·1
1962	17,517	1,386	7·9
1963	18,375	1,443	7·9
1964	19,082	1,493	7·8
1965	19,421	1,557	8·0
1966	19,811	1,562	7·9
1967	20,211	1,562	7·7
1968*	22,562	1,721	7·6

Source: National Income and Expenditure 1964, 1968
*National Income and Expenditure, 1969
Based on 1963 constant prices

The results indicate that the most likely figures for consumer expenditure in 1973 and 1978 are £235 hundred million at 1958 constant prices (£307 hundred million at 1968 constant prices) and

£276 (£361) hundred million respectively. The range of alternatives for 1973 is from £229 (£299) hundred million to £244 (£319) hundred million; and for 1978 from £262 (£343) hundred million to £290 (£379) hundred million.

3 GROWTH IN UK DEMAND FOR CLOTHING

The expenditure elasticity of clothing

We have used total consumer expenditure as the single predictor to produce the preliminary forecast of clothing expenditure. Thus we have to relate an increase in total expenditure to an increase in clothing expenditure. In other words, we have to determine the 'total expenditure elasticity' of clothing, ie:

$$\frac{\text{Percent increase in clothing expenditure over given period of time}}{\text{Percent increase in total expenditure over same period of time}}$$

If the value is greater than 'one', then clothing expenditure increases its share of total expenditure as the total increases; if elasticity is less than 'one', then clothing expenditure decreases its share as the total increases.

The proportions of total expenditure claimed by clothing have been stable for many years although there are short term fluctuations which imply an expenditure elasticity which varies widely from year to year.

Table A2.5 Expenditure elasticities for clothing

Period	*Elasticity* (1958 prices)
1947–52	4·8
1952–57	1·58
1957–62	0·88
1962–67	0·83

Source: Based on National Income and Expenditure, HMSO

As shown in Table A2.5, the first two five-year periods since 1947 show a wide variation, taking an average value of 2·12. This variability can be explained in terms of consumer behaviour resulting from shortages during and immediately after the war years. Clothing expenditure then caught up, and a more stable situation has developed since the middle fifties to the present day.

The future value for expenditure elasticity has to be forecast on the basis of its current value, past trends and international comparisons.

There is a tendency for the expenditure elasticity of all consumer items to decrease with time. Therefore, on this basis we would expect elasticity to take a value in the future lower than 0·9.

Various studies of private expenditure have been carried out in Europe. Some of the results of these studies are in Table A2.6, together with the American experience in the 1950s.

Table A2.6 Expenditure elasticities for clothing in some developed countries

Country	*Period*	*Elasticity*
France	1960–70	0·92
France	1965–75	0·86
Italy	1960–70	0·95
Netherlands	1951	1·07
Netherlands	1960	0·93
Netherlands	1970	0·76
Netherlands	1980	0·62
Norway	1930–39	1·3
Norway	1930–59 (excluding 1940–48)	1·2
Norway	1949–58	0·6
Norway	1952–59	2·0
Norway	1960–70	0·83
Sweden	1960–70	1
USA	1950–60	0·78

Source: AIC research into published studies

They show a similar pattern to the UK although both proportions of income spent on clothing and rate of decrease vary from country to country. The American experience in the 1950s is of particular interest, because income levels in the USA at that time were similar to those we expect in the UK in the 1970s. During this period US expenditure elasticity of clothing was 0·78. Experience has shown that forecasts based simply on US experience plus a time lag often conceal more than they reveal, but the other evidence here confirms the significance in this case.

On the basis of the above trends and comparisons, a value of 0·8 for the expenditure elasticity of clothing has been taken as the basis for the preliminary forecast.

Preliminary forecasts of UK demand for clothing

Our preliminary economic forecast of UK expenditure on clothing has been based on an expenditure elasticity of 0·8, together with 0·7 and 0·9 as alternatives, to cover the range of possible values and give an indication of sensitivity. All the figures in Table A2.7 are based on the most likely growth in total consumer expenditure.

Table A2.7 Preliminary forecasts of growth in UK clothing expenditure

UK clothing expenditure		*Expenditure elasticity* 0·7 *Lower*	 0·8 *Most likely*	 0·9 *Upper*
Growth index	1973	109·5	110·8	112·2
(1968=100)	1978	123·3	126·6	130·0
Average	1968–73	1·8	2·0	2·4
annual	1973–78	2·4	2·7	3·0
growth rate (%)	1968–78	2·1	2·4	2·7

When we take into account uncertainty both in the growth rate of total consumer expenditure and in the value of expenditure elasticity for clothing, the possible range of the forecast widens. For example, if we apply the expenditure elasticity of 0·7 and 0·9 in the upper and lower limits of our forecast for consumer expenditure given in Table A2.3 then the potential range for clothing expenditure widens as follows:

Growth index for clothing expenditure, 1968=100

	Lower	*Most likely*	*Upper*
1973	107·4	110·8	116·1
1978	118·6	126·8	136·1

In fact it is most unlikely that extreme values of both total consumer expenditure *and* elasticity will occur; thus the range for clothing expenditure as shown above is wider than can reasonably be expected.

On the other hand we would certainly expect confidence limits wider than those shown in Table A2.5, ie:

	Lower	*Most likely*	*Upper*
1973	109·5	110·8	112·2
1978	123·3	126·8	130·0

Similarly we would expect confidence limits wider than the values obtained if we use a value of 0·8 for elasticity with the lower and upper forecasts of total consumer expenditure, ie:

	Lower	*Most likely*	*Upper*
1973	108·4	110·8	114·3
1978	120·6	126·8	132·0

Therefore, we should certainly place our upper and lower limits on clothing expenditure in the ranges as below:

	Lower	*Upper*
1973	107–110	112–116
1978	119–123	130–136

and probably in the ranges

	Lower	*Upper*
1973	107–108	114–116
1978	119–120	132–136

An alternative method of determining ranges would be to assume that the values of upper, most likely and lower represented some points on a statistical distribution. This approach gives the erroneous impression of statistical precision but can be used to give an indication of variability.

If we assume the estimates of total consumer expenditure and elasticity are normally distributed with the range (upper–lower) equal to 6 standard errors, then we can compute the equivalent range for clothing expenditure as follows.

Approximately:

$$\left(\frac{C}{ab}\right)^2 = \left(\frac{A}{a}\right)^2 + \left(\frac{B}{b}\right)^2$$

where a = most likely value for elasticity
b = most likely value for growth in total consumer expenditure
A = (upper–lower) values of elasticity divided by 6
B = (upper–lower) values of growth in total consumer expenditure divided by 6
C = (upper–lower) values of growth in clothing expenditure divided by 6

For
1973 $C = 1{\cdot}06$
For
1978 $C = 2{\cdot}1$

These values give us ranges for growth in clothing expenditure as below:

	Lower	*Upper*
1973	108	114
1978	121	133

Another statistical distribution which may be more realistic is the 'Beta' distribution where we can treat the 'most likely' values as 'modal' rather than 'expected' values. Then the expected value of the distribution can be calculated as follows:

$$\text{Expected value} = \tfrac{2}{3}\,(\text{modal value}) + \tfrac{1}{3}\,(\text{mid-range value})$$

This approach has only a very marginal effect as the estimates of expenditure elasticity are symmetrically distributed and total consumer expenditure estimates are significantly non-symmetric for 1973 only, ie:

Expected value growth in consumer expenditure for 1973=13·8

Expected value growth in consumer expenditure for 1978=33

Many other assumptions about the shape of the underlying probability distribution can be made, but on the basis of the above, and a feeling that the lower limits were rather more unlikely than the upper, we chose the limits shown below:

	Lower	*Upper*
1973	9	14
1978	23	32

The lower limits are at the upper end of the lower limit range and the upper limits are at the middle to lower end of the upper limit range.

It must be stressed that the exact values chosen for these limits are based on our judgment as rigorous statistical analysis is not possible. The values follow our view, based on research, that growth in clothing expenditure is very stable in the medium to long term. The range of forecasts is summarised in Table A2.8.

Table A2.8 Range of forecasts of clothing expenditure

	Growth in clothing expenditure (%)		
Year	*Lower*	*Most likely*	*Upper*
1968–73	9	11	14
1973–78	10	14	17
1968–78	23	27	32

Relative price changes

We forecast that the general level of retail prices will rise by about 17 per cent between 1968 and 1973 and by 35 per cent between 1968 and 1978. These increases are very similar to those we forecast for clothing and, bearing in mind the errors inherent in forecasts of this kind, we have not adjusted our forecasts of clothing expenditure to reflect relative price changes.

Some relative decline in hosiery and knitwear prices, compared with prices of other garments, has led us to make some adjustments in our forecasts for hosiery and knitwear products—but this does not affect 'All Clothing', only the individual products in Chapters 6–12.

GROWTH IN UK DEMAND FOR GROUPS OF GARMENTS WITHIN CLOTHING

The forecasts for groups of garments within clothing have been based on data from the Family Expenditure Survey.

Average family expenditure patterns were analysed over a period of eleven years. These figures, expressed in shillings per week at current prices, are shown in Table A2.9.

Table A2.9 UK clothing expenditure of average family, 1957–67

	shillings per week at current prices										
Garment group	*1957*	*1958*	*1959*	*1960*	*1961*	*1962*	*1963*	*1964*	*1965*	*1966*	*1967*
Men's outerwear	4·38	4·28	5·67	4·59	5·26	5·18	5·50	5·92	6·65	6·55	6·58
Men's innerwear	2·38	2·30	2·28	2·33	2·61	2·49	2·72	2·73	2·83	2·90	3·09
Women's outerwear	5·73	6·46	6·47	8·51	7·43	7·12	7·56	8·47	9·61	10·56	10·02
Women's innerwear	3·24	3·27	3·47	3·56	4·10	4·00	3·91	3·98	4·37	4·36	4·09
Children's clothing	3·72	3·85	3·79	3·90	3·99	4·23	4·55	4·02	5·19	4·55	5·00
Other clothing	4·27	4·13	3·83	4·78	3·91	3·94	4·33	3·71	4·31	4·45	4·34
ALL CLOTHING	23·72	24·29	25·52	27·66	27·30	26·97	28·56	28·84	32·96	33·36	33·12

Source: Family Expenditure Survey

These figures were then converted to percentages of total clothing expenditure at 1962 prices, using retail price indices. Predictive equations of the following type were then estimated, with the use of regression analysis.

Proportion of total clothing expenditure going on a particular garment-group (in 1962 prices)

$$= a + b \times \text{total clothing expenditure (in 1962 prices)}$$

The 'a's and 'b's are constants determined by regression analysis and differ for each garment-group. The results can be seen in Table A2.10.

Table A2.10 Results of regression analysis of main garment groups

Garment group	*Regression coefficients*	
	'a'	'b'
Men's outerwear	+0·182	+0·00033
Men's innerwear (including hose)	+0·158	−0·00238
Women's outerwear	−0·004	+0·01027
Women's innerwear (including hose)	+0·211	−0·00263
Children's clothing	+0·191	−0·00142
Other	+0·283	−0·00481

The interpretation of these figures is that, as total expenditure on clothing increases, the proportions spent on men's and women's outer clothing increase, but the proportions spent on other groups tend to decrease. These figures are for constant prices.

If we now estimate the increases in total clothing expenditure per family for 1973 and 1978, we can insert them in the regression equations and forecast the proportions going to each garment group. These proportions can then be translated into growth rates for each garment-group, as in Table A2.11.

As can be seen, the major growth areas are in outer clothing.

Table A2.11 Preliminary forecasts of growth in garment groups

Garment group	*Growth indices* (1967=100) 1973	1978
Men's outerwear	116	133
Men's innerwear	99	102
Women's outerwear	126	159
Women's innerwear	116	122
Children's clothing	109	120
Other	104	102
ALL CLOTHING	115	131

5 FURTHER MODIFICATION OF FORECASTS

The next stage of the work was to modify these preliminary forecasts on the basis of our consumer, market and technological research.

Each of the groups of garments was broken down into its major categories, and consumer and market research used to relate the growth rate of these categories to the main groups. These modifications were only significant for innerwear.

The growth rate for men's innerwear was increased because of our assessment that expenditure on shirts would rise more rapidly than indicated by these purely economic forecasts. This extra increase in expenditure will arise because of the increasing fashion consciousness in this market. Past trends in this direction were masked in the preliminary economic analysis by the recent influx of cheap imports.

The adjustment to the forecast of women's innerwear is explained by the switch from stockings to tights and the resultant increased expenditure. This rapid change, mainly in 1968, could not be picked up by the economic analysis.

Finally the children's sector of the market was divided and grouped with the corresponding adult garment groups.

Our final forecasts of consumer expenditure on garment groups is shown in Tables A2.12 and A2.15.

Table A2.12 Final forecasts of UK demand for garment groups

Garment group	*Retail value* (£m) 1968	1973	1978	*Growth index* (1968=100) 1973	1978
Women's and girls' innerwear	354	477	503	135	142
Men's and boys' innerwear	244	265	290	108	119
Women's and girls' outerwear	855	997	1,220	117	143
Men's and boys' outerwear	560	627	716	112	128
Other	250	260	255	104	102
TOTAL	2,263	2,626	2,984	116	132
Average annual growth rates	1968–73: 3·0% 1973–78: 2·7% 1968–78: 2·8%				

The rapid increase in expenditure on women's innerwear has resulted in a distortion of the total growth rate in clothing expenditure between 1968 and 1973. The effect of this increased expenditure is to produce an elasticity greater than unity for the first five year period. In fact, this very rapid growth will be substantially completed by 1970, after which consumer expenditure on clothing will revert to its normal pattern, as discussed in the earlier sections of this appendix.

In Table A2.1 we summarised the results of the whole process by which we arrived at our final forecasts of clothing expenditure in the form of growth indices and annual average growth rates. Since the total expenditure elasticity of clothing is the ratio of the percentage increase in clothing expenditure over a given period of time to the percentage increase in total expenditure over the same period of time, we can determine from the growth indices in Table A2.1 the final adjusted forecast clothing expenditure elasticities for the periods 1968 to 1973 and 1973 to 1978.

Table A2.13 Forecasts of elasticities for UK clothing expenditure

Clothing expenditure elasticity	1968–73	1973–78	1968–78
Preliminary forecast	$\frac{11}{14}=0{\cdot}8$	$\frac{14}{17}=0{\cdot}8$	$\frac{27}{33}=0{\cdot}8$
Final forecast	$\frac{16}{14}=1{\cdot}1$	$\frac{14}{17}=0{\cdot}8$	$\frac{32}{33}=1{\cdot}0$

The results of our calculations are shown in Table A2.13. The final average clothing expenditure elasticities are 1.1 for the period 1968 to 1973, 0·8 for the period 1973 to 1978 and almost exactly unity for the entire ten year period.

The penetration of knitted fabric in the various garment categories was forecast on the basis of forecasts of costs, of technological developments especially in making-up, assesssments of economic and market forces, and informed opinion.

6 SOURCES OF CLOTHING EXPENDITURE STATISTICS

The AIC estimate of the sum of consumer expenditure on clothing for 1968 is approximately 20 per cent higher than that given by the Board of Trade in *Economic Trends.*

When comparisons are made between AIC's estimates of UK manufacturers' production and the figures given in the Industry, there is very close agreement. In Table A2.14 we have made a comparison of the two sets of figures for those garment groups where the statistics are compiled on the same basis.

Table A2.14 Comparison of AIC production estimates with figures in the Business Monitor, 1968

	£m *at manufacturers' sales prices*		
	AIC	*Business Monitor*	
Knitwear			
Men's and boys'	50	34 men's	+16 children's
Women's and girls'	65	64 women's	
Total	115	114	
Hose			
Women's stockings and tights	75	66	+(3 not specified)
Other	24	22	
Total	99	91	
Women's and girls' innerwear			
Lingerie and nightwear	20	16+shares of children's (in total £9m of which some is boys' and some is warp knitted).	
Men's and boys' innerwear			
Underwear	17	15+share of children's (in total £9m of which some is girls' and some is warp knitted).	

Source: Business Monitor and AIC Research

We feel that the difference in estimates of expenditure on all clothing requires some comment. We used three basic official sources:

National Income and Expenditure, which breaks down total clothing expenditure into men's and boys' clothing and women's and girls' clothing.

The 'Family Expenditure Survey', which—on a sample of approximately 10,000 households—estimates expenditure on garment groups.

The 'Business Monitors' for the 'clothing', 'hosiery and knitwear' and 'warp knitting' industries. The detailed production figures in the Monitors can be used, with international trade statistics and an estimate of retail mark-up, to give an indication of consumer expenditure.

The first two sources do not produce equivalent estimates, the Family Expenditure Survey generally being the lower figure by some 20 per cent. The third is the only source of sufficient detail for a study of this kind; but its coverage of manufacturers in many sectors is not high, and the product classifications used do not accord fully with those in the International Trade Statistics, which themselves have different classifications for imports and for exports. A further problem is estimating the average retail mark-up.

We had, therefore, to rely heavily on market research data, mostly those generously provided by ICI Fibres Limited and Courtaulds Limited, to whom we are very grateful, but also other sources. Wherever possible, we have indicated the sources of the estimates and opinions on which we have drawn, but it will be appreciated that much was said to us in confidence, so that we have not always been able to give a more specific description than 'Market Research', ICI Fibres Limited carry out a continuous programme of surveys of individual consumers. About 250 women and 170 men, representative of the population between 15 and 65, are questioned each week on their purchases of a large number of garment types. However, although average prices can be estimated from the data, these surveys are designed to estimate numbers of garments rather than value of garments. Courtaulds Limited made available to us some of their more detailed ad hoc consumer surveys.

Comparing these two major sources, together with other less comprehensive information from various sources including trade associations, and with the production and international trade statistics, we formed a judgment of the UK market size for each garment group. In some cases the figures from all sources were in approximate agreement, whereas in other cases there was considerable disagreement. The size of the category 'Other' was estimated from the Family Expenditure Survey.

We found that the *total* of our estimates of these markets was some 20 per cent higher than that in *Economic Trends*. In fact, it is more important for the purposes of this study to have sound estimates of the sizes of individual sub-markets rather than of the total market for clothing. Our estimates for these sub-markets represent a considered evaluation of the various available evidence. Therefore, although our total exceeds official estimates, we preferred not to adjust our estimates because we had no rational basis for adjusting the various garment categories.

Table A2.15 Final forecasts of UK demand for clothing categories

Category	*1968*		*1973*		*1978*
WOMEN'S AND GIRLS' INNERWEAR					
Lingerie and nightwear					
Value (£m retail)	132		149		157
Annual growth rate		2½%		1%	
Growth index	100		113		119
Tights and stockings					
Value (£m retail)	128		218		230
Annual growth rate		11%		1%	
Growth index	100		171		180
Other hose					
Value (£m retail)	7		8		9
Annual growth rate		2%		1½%	
Growth index	100		111		119
Foundation garments					
Value (£m retail)	90		102		107
Annual growth rate		2½%		1%	
Growth index	100		113		119
TOTAL (Women's and girls' innerwear)					
Value (£m retail)	354		477		503
Annual growth rate		6%		1%	
Growth index	100		135		142
MEN'S AND BOYS' INNERWEAR					
Shirts					
Value (£m retail)	155		172		194
Annual growth rate		2%		2½%	
Growth index	100		110		125
Hose					
Value (£m retail)	29		29		30
Annual growth rate		1%		1%	
Growth index	100		104		109
Nightwear					
Value (£m retail)	25		26		27
Annual growth rate		½%		½%	
Growth index	100		103		105
Underwear					
Value (£m retail)	35		36		37
Annual growth rate		½%		½%	
Growth index	100		103		105
TOTAL (Men's and boys' innerwear)					
Value (£m retail)	244		265		290
Annual growth rate		1½%		2%	
Growth index	100		108		119

Table A2.15 continued

Category	*1968*		*1973*		*1978*
WOMEN'S AND GIRLS' OUTERWEAR					
Overcoats					
Value (£m retail)	205		238		289
Annual growth rate		3%		4%	
Growth index	100		116		141
Costumes and suits					
Value (£m retail)	110		99		99
Annual growth rate		−2%		0%	
Growth index	100		90		90
Dresses					
Value (£m retail)	230		281		357
Annual growth rate		4%		5%	
Growth index	100		122		155
Knitwear					
Value (£m retail)	105		128		163
Annual growth rate		4%		5%	
Growth index	100		122		155
Separates					
Value (£m retail)	125		153		190
Annual growth rate		4%		4½%	
Growth index	100		122		152
Rainwear					
Value (£m retail)	50		61		78
Annual growth rate		4½%		5%	
Growth index	100		122		155
Other					
Value (£m retail)	30		37		44
Annual growth rate		4%		4%	
Growth index	100		122		148
TOTAL (Women's and girls' outerwear)					
Value (£m retail)	855		997		1,220
Annual growth rate		3%		4%	
Growth index	100		117		143

(*continued overleaf*)

Table A2.15 continued

Category	*1968*		*1973*		*1978*
MEN'S AND BOYS' OUTERWEAR					
Overcoats					
Value (£m retail)	35		38		43
Annual growth rate					
80% Casual		2½%		3%	
20% Formal		2%		−2%	
Growth index	100		108		123
Suits					
Value (£m retail)	205		232		269
Annual growth rate		2½%		3%	
Growth index	100		113		131
Jackets					
Value (£m retail)	60		63		66
Annual growth rate		1%		1%	
Growth index	100		105		110
Knitwear					
Value (£m retail)	75		85		98
Annual growth rate		2½%		3%	
Growth index	100		113		131
Trousers					
Value (£m retail)	115		133		159
Annual growth rate		3%		3½%	
Growth index	100		116		138
Rainwear					
Value (£m retail)	50		53		55
Annual growth rate		1%		1%	
Growth index	100		105		110
Other					
Value (£m retail)	20		23		26
Annual growth rate		2½%		3%	
Growth index	100		113		131
TOTAL (Men's and boys' outerwear)					
Value (£m retail)	560		627		716
Annual growth rate		2½%		2½%	
Growth index	100		112		128
OTHER GARMENTS					
TOTAL (Other garments)*					
Value (£m retail)	250		260		255
Annual growth rate		½%		−½%	
Growth index	100		104		102

See definitions and assumptjons on page xix.

Appendix 3 Method of forecasting the UK's imports and exports of knitted garments

Our method was to forecast the development of the UK's imports and exports of clothing as a whole, and then to estimate the proportion of this total which would be accounted for by knitted garments.

1 UK EXPORTS OF ALL CLOTHING

We have made three alternative forecasts of the UK's exports of *clothing as a whole:*

The lower forecast is derived from the DEA's Green Paper *The Task Ahead.* Our use of their forecast does not imply any support of it, but that we regard it as the least promising of the judgements made relevant to the industry. This paper forecasts an average annual growth rate of 6½ per cent for exports of clothing, leather and footwear for the period 1967–72. As it indicates a slowing down towards the end of this period, we have interpreted this for clothing alone as giving an average annual growth rate of 6 per cent for the period 1967–73. We have further interpreted this slowing down to forecast a 4 per cent average growth rate for the period 1973–78.

Our most likely forecast is based on an annual average growth rate of 11½ per cent between 1968 and 1973. This is compared with the 11 per cent growth rate (at constant prices) between 1962 and 1967, and we consider it feasible that this growth rate can be maintained. Again, it is expected that this rate will slow down to a steadier 7½ per cent per annum during 1973–78. This reflects capacity problems, reduced effectiveness of the present incentives to export and a possible general slowing down in the growth of world trade.

The values chosen for the upper forecast are 15 per cent per annum for 1968–73 and 10 per cent per annum for 1973–78. Given stable domestic conditions and skilled marketing, we have no doubt that these levels could be achieved.

Growth rates for exports of individual garment groups have been determined by their relative growth rates in the past, our forecast of the relative growth rates in the whole clothing market, and our market reports from abroad.

The growth rates for women's and girls' innerwear are much higher in terms of value than in the past because of the growing trade in tights as opposed to stockings.

2 UK IMPORTS OF ALL CLOTHING

We have made three alternative forecasts of the UK's imports of *clothing as a whole:*

The lower forecast is again derived from *The Task Ahead,* which forecasts an average annual growth rate of 5 per cent for imports of clothing, leather and footwear, for the period 1967 to 1972. Interpreting this for clothing for 1968–73, we have reduced the growth rate to 4½ per cent per annum, to compensate for the particularly high growth rate in 1968. We have further interpreted the speeding up of the DEA's predicted growth rate in the early 1970's to forecast a 5 per cent average growth rate for the period 1973–78.

The middle forecast is slightly greater than the growth rate experienced between 1962 and 1967; it is our opinion that the most likely growth rate for imports will not be lower, because this was a period of import restrictions centred around the unprecedented fall in imports in 1965. We do not anticipate that the effects of devaluation and the current import restrictions will have a greater effect than these earlier restrictions, particularly in view of the record import growth in 1968. The slight increase in the growth rate reflects the growth in the value per unit of imported women's hose. Following the same argument as before, the growth rate might be expected to accelerate slightly in the second five year period. However, the 8½ per cent per annum growth rate forecast for 1968–73 was artificially high because of the increased unit value of women's hose. Compensating for this, we arrive at an average growth rate of 8 per cent per annum for 1973–78.

The upper limit is an attempt to predict the sort of inflow that might be expected if significant price inflation takes place in the low to medium price range of British-made clothing. It is based on past trends, together with the size and price structure of the UK market. The growth rate slows down over the second five year period because high penetration of imports will have been reached in certain garment groups, notably shirts, trousers, knitwear and men's underwear, and this will prevent a high growth rate being sustained.

Import growth is substantial in all main garment groups, but the majority of imports are at the very cheap, light end of the market. The major growth areas for imports are shirts, jackets, trousers, knitwear and dresses.

3 UK IMPORTS AND EXPORTS OF KNITTED GARMENTS

The UK's imports and exports of knitted garments are discussed in detail in the monographs in Chapters 6–12 and our forecasts are summarised in Tables A3.1 and A3.2, which also show the total imports and exports of *all* clothing in the garment groups shown. The proportions of the totals accounted for by knitted garments were forecast along the same lines as our forecasts for the UK market (see Appendix 2 and Chapters 6–12). A discussion of our forecasts will be found in Chapter 2.

Table A3.1 Forecasts of UK exports by garment group

		1968	*1973* £m			*1978* £m		
Garment group		£m	*Lower*	*Middle*	*Upper*	*Lower*	*Middle*	*Upper*
Men's and boys':								
Knitwear	All knitted	13	18	22	26	21	31	40
Hose	All knitted	3	3	3	4	4	4	5
Suits, jackets, trousers	Total	5	5	7	8	8	10	12
	Knitted	*	*	1	2	1	2	3
Other outerwear	Total	6	9	9	11	10	13	18
	Knitted	*	*	*	*	*	*	*
Underwear	Total	1	1	1	1	1	1	1
	Knitted	1	1	1	1	1	1	1
Nightwear	Total	1	1	1	1	1	1	2
	Knitted	*	*	*	*	*	*	1
Shirts	Total	3	3	4	5	4	5	6
	Knitted	*	*	1	2	1	2	2
Women's and girls':								
Knitwear	All knitted	11	12	14	16	14	18	22
Hose	All knitted	2	4	7	8	5	11	13
Dresses	Total	13	22	32	38	27	47	66
	Knitted	2	4	6	8	7	12	17
Costumes, separates and other outerwear	Total	11	17	27	33	25	48	71
	Knitted	4	8	12	15	13	24	36
Overcoats, rainwear	Total	8	12	16	19	15	23	30
	Knitted	*	*	*	*	*	*	*
Lingerie and nightwear	Total	2	3	4	4	4	5	6
	Knitted	1	2	3	3	3	4	4
Other:	Total	18	19	20	21	20	22	24
	Knitted	2	3	3	3	4	4	5
TOTAL	Total	97	129	167	195	159	239	315
	Knitted	39	55	73	88	74	113	149

Notes:
Total and knitted refer respectively to all clothing in the garment group and weft and/or warp knitted clothing in the garment group.
An allowance for parcel post is included
*less than £0·5m

Table A3.2 Forecasts of UK imports by garment group

		1968	*1973* £m			*1978* £m		
Garment group		£m	*Lower*	*Middle*	*Upper*	*Lower*	*Middle*	*Upper*
Men's and boys':								
Knitwear	All knitted	7	10	12	17	16	19	29
Hose	All knitted	*	*	1	1	1	1	2
Suits, jackets, trousers	Total	15	22	28	34	32	46	60
	Knitted	*	*	1	2	2	4	5
Other outerwear	Total	8	10	11	14	13	16	22
	Knitted	*	*	*	*	*	*	*
Underwear	Total	3	6	7	8	8	10	12
	Knitted	3	6	7	8	8	10	12
Nightwear	Total	2	3	4	4	4	6	7
	Knitted	*	1	1	2	2	3	4
Shirts	Total	12	16	20	22	21	35	43
	Knitted	6	11	15	18	15	26	30
Women's and girls':								
Knitwear	All knitted	8	8	12	19	9	20	32
Hose	All knitted	6	8	10	12	10	12	14
Dresses	Total	7	10	11	13	12	18	22
	Knitted	2	3	4	6	5	7	14
Costumes, separates and other outerwear	Total	13	15	18	20	18	24	28
	Knitted	8	9	12	17	13	17	24
Overcoats and rainwear	Total	6	7	8	9	9	12	14
	Knitted	*	*	*	*	*	*	*
Lingerie and nightwear	Total	5	7	8	9	9	12	15
	Knitted	2	3	5	6	4	8	12
Other:	Total	20	21	22	23	22	24	28
	Knitted	3	4	5	6	6	8	10
TOTAL	Total	110	140	170	203	181	252	326
	Knitted	45	63	85	114	91	135	188

Notes:
Total and knitted refer respectively to all clothing in the garment group and weft and/or warp knitted clothing in the garment group.
*less than £0·5m

4 TRADE BALANCE

Throughout this report we have examined three alternative possibilities:

the most likely trade balance, which is the most likely exports minus the most likely imports;

the optimistic trade balance, which is the arithmetical average values of both the upper exports minus the most likely imports, and the most likely exports minus the lower imports;

the pessimistic trade balance, which is the arithmetical average values of both the lower exports minus the most likely imports, and the most likely exports minus the upper imports.

5 UK EXPORTS BY PARCEL POST

Exports of goods by parcel post, when the parcel is valued at less than £50, are included in the Trade Accounts as Section 9 under the heading 'Post parcels not classified according to kind'. Consequently, the figures for the descriptions of goods in other sections are deficient to the extent of the volume of this parcel post trade, which, in the case of hosiery and other knitted goods, is known to be considerable.

We have examined this question in some detail during this study. Estimates of the value of such unclassified parcel post exports of hosiery and other knitted goods vary considerably from the 40 per cent generally quoted by the trade.

We have been unable to draw firm conclusions from available data and, throughout this study, have assumed:

Parcel post accounts for a further 40 per cent of UK exports reported for knitted garments quoted in the trade accounts.
Parcel post does not account for a significant volume of exports of knitted fabrics.
Parcel post does not account for a significant volume of imports of clothing or fabrics.

However, a probable growth in air freight at the expense of parcel post, may increase recorded exports of hosiery and knitwear in the next decade.
There are several reasons why hosiery and knitwear may be exported by parcel post:

The items may be samples, not for sale, sent by sample post.
The consignment may be very small, or a small quantity may be sent to complete a partially filled large order, or an item may be sent to replace a return, or there may be a small repeat order.
The necessity for rapid delivery (this is especially important in fashion clothing) may outweigh other considerations. (Parcel post is a more expensive method of transport than freight and also is restricted in weight to 22 lbs and to maximum dimensions.)
The items may be expensive and able to bear the expense of parcel post.
The items may be gifts.
Less complete documentation and ease of delivery may be attractive.
The customer may be a retailer requiring direct delivery to his shop.
Hosiery and knitwear are easily folded and may be closely packed without harm.

Attempts have been made to assess the value of parcel post exports. None has been entirely successful.

The Board of Trade has attempted to isolate the parcel post element in foreign trade returns, but has failed because the documentary descriptions are statistically too sketchy. The GPO takes sample surveys at infrequent intervals to determine classification of goods in export parcels. Due to the sample size only the barest indication can be obtained. It is not thought possible to differentiate between knitted and other garments.

The quarterly returns of the hosiery and other knitted goods enquiry contain figures of direct exports by manufacturers of:

knitted garments,
weft knitted fabric,
warp knitted fabric.

This is the closest to a reliable quantitative estimate which is available. Table A3.3 provides a comparison between the values declared by the industry in the Business Monitor and the values published in the Overseas Trade Accounts. It will be seen that the percentage can fluctuate between 40 per cent and 20 per cent.

Table A3.3 UK exports of knitted garments—comparison between Trade Accounts' and Business Monitor's values, 1963–68

Year	*Business Monitor's values* £m	*Trade Accounts' values* £m	*Approximate difference* £m	%
1963	19·8	14·5	5·3	37
1964	21·4	15·7	5·7	36
1965	23·1	16·9	6·2	37
1966	24·6	17·6	7·0	40
1967	26·5	21·1	4·6	22
1968	32·3	26·9	5·4	20

Sources: Business Monitor
HM Customs and Excise

Notes:
The Business Monitor's data are based on years ending January of the following year, except 1967 and 1968 which are calendar years. No allowance for this has been made in the figures used for analysis.
Business Monitor export values compiled from returns of firms employing 25 or more persons as 'Exports of all knitted goods except fabric'.
Export values published in Overseas Trade Accounts of the United Kingdom are classification 841·4—'Clothing and Accessories, knitted or crocheted'.
The 'Approximate Difference' value is the difference between the Business Monitor's value and the Trade Accounts' value. The percentage is the ratio of this difference and the Trade Accounts' value.

The data in Table A3.3 are not truly comparable because of, amongst other things:

Different classifications. For example, the Business Monitor:

includes some bed linen, stretch covers, blankets and net curtains,
excludes indirect exports by wholesalers, merchants, makers-up, agents, tourists, private persons, etc.

Different timings.

Different declared values, etc.

6 OFFICIAL STATISTICS

We pointed out in Chapter 2, p. 11 that official statistics are not wholly reliable. There are for example unexplained anomalies in the OECD figures, and it would appear that further investigation is necessary in certain areas. For instance, the UK reported to the OECD that it exported $11 million fob of knitted garments (SITC 841·4) to other EFTA countries in 1967. The other EFTA countries, however, reported that they had imported $22 million cif of knitted garments (SITC 841·4) from the UK in 1967. Clearly the 100 per cent difference between these two figures cannot be explained simply by insurance and freight charges and by varying delays between despatch and receipt. Methods of recording parcel post exports and imports may provide part of the explanation.

The OECD was approached in an attempt to illuminate the problem and we reproduce the reply received:

> 'As suggested in the introduction to Series C, the data published therein—being a faithful reflection of the information submitted by Member Governments—are only comparable from country to country to the extent that basic reporting is consistent. There are, as you will no doubt be aware, many reasons for inconsistent reporting by the two countries participating in any given international transaction. Apart from differences in timing and valuation, consistency is often impaired by inaccurate reporting by exporters of the final destination of commodities, whether through carelessness or sheer ignorance.'
>
> 'Another source of incompatibility—and, in our view, probably the main reason for the discrepancies you noted—is an imperfect implementation by reporting countries of the internationally agreed commodity nomenclatures (BTN and SITC). In other words, though data are being reported under identical headings, it seems that the precise coverage of each heading is not always identical for all countries. Looking at the data for SITC 841·4, there are reasons to believe that such inconsistencies in coverage do arise as between the UK and some other OECD countries, particularly Italy; but the information released by national statistical authorities as to the precise contents of the nomenclature utilised for the recording of foreign trade, is not specific enough to enable us to detect the possible misallocation of certain types of clothing to other items of the SITC.
>
> Another fact which may have contributed to the discrepancy between UK exports of clothing and the corresponding imports of other countries, is the under-recording of UK exports recently discovered by the Board of Trade. We have no idea whether this had a more than proportionate effect on exports of clothing; though with low value shipments presumably accounting for a significant proportion of the total, this type of good seems a plausible candidate for under-recording.'

Appendix 4 UK consumer habits and attitudes towards clothing

Without a much longer study than we have been able to carry out, it is not possible to develop definitive views on so complex a subject, and so many garment types, much less forecast how they will be in 5–10 years time.

However, we have identified and summarised in this Appendix some major constraints. We appreciate that they may already be known to many firms in the industry.

The research was carried out by the Tavistock Institute of Human Relations, Centre for Applied Social Research, under the general direction of AIC. It consisted of group discussions, followed by interviews in depth with married couples and with single persons.

The research was carried out in the first place for the Clothing Industry EDC. Therefore, the findings are not confined to hosiery and knitwear.

1 BY WHOM, WHEN AND WHY ARE CLOTHES BOUGHT?

Who buys clothing?

The great majority of clothes are brought by women, who buy most of their own clothing and also a great deal of men's and children's clothing. But we must distinguish the act of purchasing from the act of decision making. Men and children play a more significant part in the latter than the former.

The act of purchasing

The dominance of women here reflects several factors. Women, especially housewives, can reach shops more easily than men, like shopping more, and shop anyway. Full-time housewives, and often their husbands, agree that since they make no financial contribution to the family they must earn their keep in other ways. Men take less interest in clothes, and the high degree of uniformity in men's clothing facilitates purchase by another. However, although in general most clothes shopping is done by women, individuals and families vary greatly, for personal reasons and because of social class, age, and type of garment.

Social class On the average, women buy a higher proportion of men's clothing in the DE social class than any other; this proportion tends to decline as one moves upwards; AB men buy a relatively high proportion of their own clothing.

Age There is also a tendency to buy more of one's own clothing with age, up to young adulthood at least for men, and later for women. Almost all children's clothing is purchased by women. In adolescence and early manhood, male self-purchasing is highest, especially in the working class where the young man is likely to have relative independence of his mother and income of his own, but he has not yet a wife to do the shopping or family to limit his spending on his own clothes. At this period, the proportion of income spent on clothing by C2 DE class youths directly is higher than at any other time. The expenditure of AB C1 young men who are also more likely to buy their own clothes at this time is limited by low income and the pressure of other demands like education, holidays or sport.

Type of garment

The proportion of men's clothes bought by women declines steadily from the inside outwards.

Underwear is the most common purchase made by women, suits and overcoats least common; shirts are intermediate. Ties, leisure and sports garments allow for a man's expressing his own individuality.

A limiting factor is the need for good fit. Fit is relatively unimportant for underwear, but is more important for shirts; though, here, sizing is generally felt to be good enough for others to buy. Suits must fit well and almost all men regard it as necessary to try suits before purchase, or have them made to measure.

The act of decision making

One must differentiate between the purchaser and the purchasing decision-maker. The person who buys may be wholly, partly, or not at all, the same person as the person who makes the purchasing decision.

It is rare for a purchaser to be the sole decision maker, even when he buys for himself. Clothes are supra-personal and express one's awareness of one's place in society, one's sex, age, role and function, all of which influence the purchasing decision. In addition, purchasing decisions are influenced by important people in the environment.

Purchasing decisions which often take place away from the point of sale, are therefore more complex and more social than purchasing acts.

A significant amount of clothing is given as gifts, mainly for Christmas, birthdays and new-born babies.

Sometimes they are garments that are needed and would be bought anyway, in which case they may be somewhat more attractive and expensive than the person would buy for himself.

It is part of the genius of Marks and Spencer that they offer unique facilities for giving clothes as presents within a limited range and at popular prices. Their policy of exchanging anything bought in any store for anything else purchasable in any store means that a Marks and Spencer's garment has some of the qualities of money or a gift token without being thought to lack understanding, imagination, or concern for the recipient.

When are clothes bought and why?

A multiplicity of interacting factors affects both the nature and timing of the purchasing decision and of the purchasing act. This makes it difficult to predict with any accuracy both long and short-term variations in demand. We comment on some of the more dynamic factors: replacement, fashion and postponability.

Replacement

Absolute necessity.

For some types of garment, the user or purchaser feels the determining factor to be near to 'absolute necessity'.

The existing garments have worn out; it is essential to have such garments; new ones must be purchased. Women's stockings and tights perhaps epitomise this type of purchase.

Men's underwear is also greatly affected. It is used until worn out and then replaced because minimal stocks tend to be held. The actual purchase may be precipitated by special events like holidays or visits to a doctor when usually 'private' clothing may become 'public'.

Women's underwear has some features in common with men's; that is, it is often worn until worn out, whatever that means, and thrown away and replaced. The actual wearing out period for women is probably longer than for men because of the greater use of long-life man-made fibres, and less heavy usage; and women tend to have a larger underwear wardrobe because they need a greater variety of garments than men. The absolute necessity factor applies to married women who have many claims on their budget and probably no dress allowance, and also to older women.

Conventional necessity

Many garments are bought to replace existing garments even if these are not truly worn out (by whatever criterion applies) and are not thrown away.

For example, a man may feel a suit is too shabby by conventional standards for wearing for important business appointments, although suitable for a day in his office without appointments. He will replace it with a new one and downgrade its use. Suits and overcoats are relatively expensive, and not many men lightly decide to replace them. The main criterion is still 'when I need a new one'. Fashion brings little pressure to bear on men to change suits, although it may affect choice when they are being replaced. The same may be said of overcoats, except insofar as fashion has introduced new types of overcoat frequently in addition to the 'classic' which is still retained, e.g. car coats, sheepskin coats, anoraks, very lightweight rain-coats.

Shirts, on the whole, are worn until worn out, by conventional standards, although the shirt wardrobe has probably increased and may well continue to do so if the tendency to differentiate shirts into categories for different purposes continues. This does not necessarily mean, however, that in the long run men will wear or wear out any or many more shirts. Rather, it is likely to mean slightly higher purchases in the wardrobe building stage with no greater, or possibly even less, replacement purchasing later.

Women's purchases of clothing are also much affected by the conventional necessity factor. Winter coats tend to be replaced when the present one is a bit shabby, but this is retained for certain purposes like shopping locally or taking the children to school. The one before that may then be thrown away.

Fashion

Fashion exerts more pressure on women than men to purchase new outerwear before existing garments are worn out, but it would be unwise to exaggerate the influence of fashion in actually increasing women's purchases. Again its influence is on choice when a person intends to purchase anyway, rather more than in influencing a person to purchase.

We believe that attempts to increase purchases by introducing more fashion-based obsolescence are not likely to be very successful. Rapid fashion changes are distasteful to the consumer for a number of reasons. Fashions seem to represent in some way the spirit of the age or time, for which people have an intuitive feeling, and this does not change very rapidly or dramatically except in unusual circumstances, e.g. at the end of World War II. Women have recently proved very resistant to attempts to bring about major fashion changes, e.g. skirts stay very short in spite of the attempt to drop them to mid-calf length. A recent revolution in shoe styling was resisted for several seasons and was never completely successful.

Further, consumers tend to feel exploited and almost insulted by being pressurised by fashion changes into excessive expenditure on clothes, which makes them feel guilty and foolish. At one extreme, resistance to this may be a cause of the adolescent tendency to vary individual self-styling in an attempt to defeat fashion; at the other extreme, of increasingly classic tendencies among older people who wear clothes which may never be highly fashionable but equally are never really unfashionable.

Resistance to fashion changes is likely to be greatest when the new fashion means considerable expenditure on new clothes; e.g. mini-skirts cannot be made into maxi-skirts, although the opposite is possible. Aesthetic considerations also apply; classic versions of clothes persist through all fashion changes with minor variation.

There has been a notable change recently in fashion leaders. For many generations, it has been the upper middle class, personified, for example, by the Prince of Wales (Edward VIII). Now the fashion leaders are frequently adolescents, this being linked with their being most susceptible to pressure to keep changing styles because of their uncertainty about identity, and because they have money to spend on clothes.

The postponability of clothing purchases

An important feature of the clothing market is the extent to which clothing purchases can be postponed. The market is very vulnerable both to general factors which postpone purchase and to personal factors.

Clothing purchases are known to be highly influenced by general economic factors which reduce income. Moreover, people have a sense of fitness about how many garments they should possess (see 155). Greater durability of garments may well lead to indefinite postponement of replacement.

The wide variety of choices contributes to postponement of purchase; the range of choice of a particular type of garment even in one shop may be so large as to be confusing, and lead to real difficulty in choosing. Such fear of confusion applies more among women than among men, and especially young and middle-aged women. Women say garments are all made for younger and/or slimmer people or older and/or fatter people.

Importance of gifts

Gifts are an important factor in the buying of clothes (*see Chapter 3*).

Clothes may be given as gifts, both to members of the immediate family and to others. Men and children appear to be the most frequent recipients of such gifts. As far as women are concerned, it appears that they are more frequently given the money accompanied by a suggestion that they might like to buy a particular item of clothing with it.

Gifts of clothing to men, in particular, have in some cases become so institutionalised that they have come to rely on them. The most common example of this appears to occur in men's shirts—where some men are able to fulfil their total requirements solely on the basis of Christmas and birthday presents. This also occurs with socks and occasionally underwear.

Impulse buying

We believe that there is not a great deal of true impulse buying for clothes. On the contrary, probably quite a long process of consideration goes on before any major piece of clothing is purchased.

There is much pondering of the type of garment to be bought among near alternatives (for a woman a dress, a suit, a skirt and sweater; for a man a suit, slacks and sports jacket; the colour, style, materials, price and so on). After a time, a fairly detailed specification emerges which is then sought with more or less success in the shops and with greater or less preparedness to modify the specifications according to what is available. Postponability occurs if it is not found, and what may superficially resemble impulse buying may appear if an absolutely right garment is found unexpectedly. The size of financial commitment (see p. 155) is often too large to permit indulgence of impulses. The purchase is more a planned expenditure subject to last minute impulse-seeming pressures, and may result from the fact that some people, particularly women, carry a permanent implicit shopping list in their minds.

Exceptions are small, cheap items (stockings or scarves) and purchases by adolescents.

2 BASIC ATTITUDES TOWARDS CLOTHING

The degree of general interest in clothes

A basic characteristic of all consumers, as far as clothes are concerned, is their varying degree of interest in the subject. Few are completely uninterested.

Often this interest is part of their overall way of life and sometimes more specifically linked with their occupation.

It is a characteristic which appears to change slowly—if at all—except when there is a substantial change in the way of life. One of the major changes here takes place, for women, on marriage, or even more significantly, on leaving work and starting a family. Equally, a dramatic change can take place when a woman returns to work having brought up a family. In this case, her going to work may demand a greater interest in clothes and a larger wardrobe and at the same time provide the money for their purchase.

Adolescents, other than students, tend to take a keen interest in clothes, and this is related to their way of life. A large proportion of their leisure time is spent outside their home and in the company of others, and clothes are important to them in this situation. Clearly from the point of view of forecasting future demand for clothing, it is important to know the extent to which this interest of adolescents is going to be maintained into later life. This is an important topic for more detailed investigation, but the work so far undertaken suggests that some of this interest will decrease. This results from a change in the way of life—as an adolescent marries and then starts a family, the amount of leisure time spent in social contacts outside the home decreases, and the money available also decreases.

The balance between conformity and differentiation

The clothes people buy and wear are a reflection of the image they have of themselves and, particularly as far as visible clothes are concerned, the image which they wish to convey to others.

An important and basic aspect of this is the extent to which they conform to the pattern of clothing worn by others, and the extent to which they differentiate themselves as individuals. The achievement of this balance takes many forms. For example, several of the adolescents who were interviewed were in the habit of buying jeans exactly the same as those purchased by their friends, and bleaching a pattern or even painting patterns on them, in order to differentiate their jeans from others. Many examples of this can be found—men who buy very similar dark suits to their colleagues' at work, but are able to differentiate themselves by the tie which accompanies it.

The term 'fashion' occurred spontaneously in the discussions and interviews rather less frequently than had been anticipated. In fact, in a number of groups, it was hardly mentioned at all. Those interviewed found it easy to talk about clothes without frequent reference to fashion.

Some women, and this appeared an entirely female characteristic in our sample, felt that they were being forced to conform, by the industry, to wear clothes which the industry produced. They were unable to differentiate themselves sufficiently and considered that they were being almost 'dictated' to by the manufacturer. This tended to be rather more common amongst older women.

The development of a personal style

A striking feature of consumer attitudes towards clothes is the development of a 'personal style'. This 'personal style' transcends the changes of various fashions and appears to change very slowly, sometimes in fact appearing to last virtually throughout an individual's adult life.

There are very many aspects to this personal style; in particular, it involves types of clothes. For example, amongst men there are those who prefer to wear predominantly a sports coat and trousers and reserve a suit for special occasions, whilst other men prefer to wear a suit and very rarely wear a sports coat. Changes in style of the suit may take place and similarly changes in the style of the sports jacket but, nevertheless, the fundamental attitude of being a 'sports coat type' or a 'suit type' remains.

Similarly, at this level, many women develop a personal style. There are those who predominantly wear jumpers and skirts, others who predominantly wear dresses and others who predominantly wear suits. This predominant use of a particular type of garment tends to persist through the years and changes in fashion take place within this framework.

The development of a personal style is frequently associated with a total way of life. It is in this context that differences between urban and rural areas appear to emerge. The type of clothes required for a rural way of life were felt by those living outside the urban areas to be rather different from those required for the town. In our small sample of respondents, differences in attitudes towards clothing between urban and rural areas were greater than differences between London and Glasgow.

Occupation is clearly an important factor in the development of a personal style of clothing, particularly for men. In some occupations, a particular style of dress almost becomes an occupational uniform. Those working in offices are expected to wear dark suits etc, and this tends to dominate their clothes purchasing. Salesmen and commercial travellers were among those interviewed whose personal style of clothing was very much dominated by their occupation. One supervisor in a light engineering factory stated 'I couldn't go to work in a suit; people would think I was a bloody manager or something'. This does not only apply to suits.

Several of those interviewed stated that their personal style of clothing had been changed by the purchase of a car. This was not merely the fact that they no longer required a top-coat, but also the fact that they did not need to 'dress up' so much if they were going anywhere—travelling on a 'bus means travelling in public and dressing accordingly; travelling by car, on the other hand may mean not moving out of one's private accommodation until the destination is reached. The type of clothing required is therefore that appropriate to the destination and not to the journey.

An individual's personal style has ramifications on the brands he buys, the amount of money he spends, and the shops he uses; these are discussed elsewhere.

Patterns of usage

Some separate, fairly rigidly, their working clothes from those which they use for leisure, whilst for others they clearly overlap. For some, a new suit is always a 'best suit' and reserved for special occasions, whilst for others a new but inexpensive suit may be bought specifically for work. The question of the way in which individuals use their clothes has a number of different aspects.

Durability

Almost always consumers want 'their clothes to last' and this is one of the main factors involved in their purchasing. However, there is a great deal of variation in what is meant by the term "last". For adolescents, lasting may be several months; for older men, years.

On the other hand, a few adolescents did state that they were not particularly concerned about how long a garment would 'last' when they bought it. This seemed particularly to apply to garments like jeans (which were felt to 'last' quite a long time anyway). The prevailing attitude here was that clothes were so easily damaged in the kind of lives they led, that their resistance to wear was irrelevant.

Specialisation of usage

The extent to which individuals use specific clothes for specific purposes, as distinct from multipurpose clothes, varies. A few of those interviewed bought specific clothes for their summer holidays and when the holiday was over, packed them away until the following year; others had no special clothes for holidays at all but just 'used their old ones'.

Similarly, the distinction between leisure clothes and working clothes varies. For men, this is not surprisingly associated with their occupation.

Similar distinctions can be observed in women's usage. Some housewives, for example, wore old clothes for 'doing the housework', some had special clothes bought specifically for the purpose, and they then changed their clothes for shopping or visiting friends, etc. Others preferred to spend the day in clothes which they felt were suitable for shopping and visiting, but wore an overall on top when cleaning the house.

De-differentiation

While it is true that there is a trend to greater differentiation, eg wearing special slacks, shirts and sweaters at home instead of one's oldest lounge suit, there appears also to be a balancing trend to de-differentiation.

The same garment may cover a wider range of activities. Many women, for example, commented on wearing less formal clothes than they used to for visiting friends and neighbours; women's clothes in London theatres are noticeably less formal than they were ten years ago. Such de-differentiation is very much age-linked, being more marked in older people. Or again, business women wear much less 'business-ey' clothing than they used to, and are much harder to differentiate from non-business women by their clothes.

This may be seen partly as a consumer adaptation to pressures on him by the trade to increase overall purchases by trying to make more kinds of clothing conventional necessities. The consumer may not have the money, the storage space, the time, or the energy, to be bothered with too much differentiation. It is important not to overlook the point that the clothes may be a lot of trouble as well as a source of pleasure and satisfaction.

The only important exception to what has been said is the adolescent, who actually uses the wider range of clothing and use-related clothing as a means of exploring his new position in society and his potential adult position, and finding his new identity.

As regards special events, circumstances, or activities, it is true that these factors do frequently precipitate a purchase and may also increase overall purchases by increasing the stocks held by the consumer.

3 ATTITUDES TOWARDS EXPENDITURE ON CLOTHES

Several fundamental consumer attitudes tend to limit clothing expenditure to fairly clearly defined limits. These underlying influences combine to produce a high degree of rigidity in the market.

The sense of an appropriate level of expenditure

Individuals have a sense of an appropriate level of expenditure on clothes.

This has two aspects—a sense of an appropriate level of expenditure on an individual garment, and a sense of an appropriate number of garments of different types which are required.

Expenditure on individual garments

The vast majority of respondents had a sense of an appropriate price to pay for particular items and tended to keep to a particular price range for particular garments.

The most clear-cut example of this occurs with men's suits. Most men are able to indicate a price range for their suits. They would consider that to spend more would be not only more than they were able to afford, but also inappropriate; beyond a certain price range they would probably prefer to spend the money on another commodity altogether. It appeared that the appropriate price to pay for a suit clustered around two points; around £15 and around £30. Those who purchase suits in the £15 category tend to do so consistently and appear very unlikely to purchase suits in the £30 category and vice versa.

Such attitudes are not confined to suits, but are also found in relation to shirts, trousers, sports jackets, overcoats, etc.

Women similarly have a sense of an appropriate price to pay for certain garments—though seemingly this is rather more flexible than for men.

The sense of an appropriate number of garments

Each individual appears to have a sense of the total number of garments appropriate for his (or her) wardrobe. Clearly this varies very considerably from individual to individual, but applies particularly to married men and women whose way of life has become relatively stable. It is less true of adolescents, who have not always had sufficient experience of buying their own clothes to have developed a sense of the number they need.

This suggests that the market is not infinitely expandable and that there is a saturation point. Most people feel themselves to be slightly below their optimum level at any one time.

Questions were asked about what respondents would do with an unexpected gift of money. Not surprisingly, as the question was asked in the context of a discussion about clothes, many replied that they would buy certain items of clothing—but it was notable that very clearly there was an upper limit to the amount that would be spent in that way. People would use a gift of that kind to bring their wardrobe up to its optimum level, which often would not involve a great deal of expenditure. Once this optimum level had been reached there was felt to be no point in spending any more money in this way.

The level of expenditure is linked with an individual's personal style of clothing and his pattern of usage. As has already been mentioned, these appear to change slowly, except where there is a radical change in a person's way of life. Two of the most important such changes have been noted—the change from an adolescent to a married man or woman and the starting or leaving of work for a married woman. It appears that at these two points radical changes in the level of expenditure take place.

Competition between clothing and other expenditure

Considerable competition exists between clothing and other commodities, since every individual or family has a limited budget, however large, and clothing has to be fitted in with other demands.

This competition is most obvious in families at transitional or readjustment phases, notably shortly after marriage or after child-bearing starts and if a housewife goes back to work. Decisions about whether to spend available money on clothing or other things may then be very explicit. Clothes openly compete with things like washing machines, down payments on central heating or furniture. The postponability of clothes buying facilitates this. In established families with expenditure patterns, the competition is much less obvious but still applies. It is less obvious only because a budgeting pattern has been worked out. A level of expenditure on clothing, felt to be suitable compared with expenditure on other things, becomes implicit and accepted, though people may not realise competition still exists.

The competition is liable to become explicit again if a household suddenly finds a new major source of finance leading to an extension of its horizons, or decides on some major new outlay. As one woman said: 'I would have had a new winter coat this year, but now I am learning to drive; so we are saving for a Mini and I won't buy a coat'. Again one sees how the postponability of clothing purchases encourages this sort of competition.

Planning of clothes expenditure

Only one respondent had a specific clothing allowance. For most families, non-working women's and children's clothes tend to be seen as part of the general housekeeping, and working women's and men's clothes as coming out of the individual's personal allowance. In some cases, even this degree of planning and budgeting did not exist.

Even for the one respondent with a clothing allowance, the precise scope of the allowance was vague, and the allowance sometimes supplemented from housekeeping.

A few had budget accounts with a tailor. These, however, covered only a part of the clothing expenditure and were almost invariably for major items of men's wear. Moreover, they appeared to be used more for spreading payment for clothing already acquired rather than for planning future purchases.

The possibility of delay in buying clothes allows a general lack of budgeting to take place. It appears that at times when money is short, a family does not buy cheaper clothes—which would be inconsistent with their sense of an appropriate price for a garment—but delays the purchase. Similarly, when more money is available, this is used to bring the family's wardrobe nearer to its optimum level.

Children's clothes appear to be an exception to this. It is frequently recognised that it is not possible to delay the purchase of children's clothes. There are a number of fairly obvious reasons for this. Children outgrow clothes. Moreover, the fact that children are frequently seen to grow out of clothes before they are worn out means that there is a tendency to keep the total number of clothes a child possesses to a minimum, in order to extract the maximum wear. The demise of a particular garment in this rather smaller wardrobe brings a greater sense of urgency to the need for its replacement. Moreover, children damage clothes to a greater extent than adults, and so they require urgent replacement.

Overall elasticity of expenditure on clothing

We do not feel that in the long term the demand for clothing is likely to be very elastic. The market could easily become relatively saturated.

The development of special garments for special purposes is likely to have a limited effect on the market, and to be affected by a balancing trend to de-differentiation. Using one type of clothing saves wear on another, and differentiation may not necessarily lead to much increase in purchases once the slightly larger wardrobe has been built up. Increased durability will, in itself, tend to a decrease in demand. Fashion pressures do not seem likely to have much effect in maintaining elasticity or raising the saturation point. It appears that demand for clothing would not increase much in relation to a fall in price and that advertising pressures are more likely to shift demand from one type of clothing to another than to increase total sales.

But a relative increase in price might well mobilise the factor of postponibility of purchase and other factors that reduce demand. People certainly said they would make their clothing last longer if prices increased and that they would also go in for more home dressmaking.

Actual and potential effects of branding and promotion

Brand awareness

On the whole, respondents seemed fairly unaware of promotion in the clothing market.

Most people could remember a few manufacturers' names but seemed to be relatively uninfluenced by them when actually buying. If they were influenced, it seemed often to be because they liked a particular retail outlet that favoured that brand. Or, perhaps they would choose a branded rather than unbranded product if the choice were otherwise equal. A few women seemed to try to stick to a particular brand because they knew from experience that the sizing in that brand was particularly good for them. Marks and Spencer's brand was particularly mentioned in this context because of the absolute reliability of their sizing. On the whole, however, there seemed to be very little brand or manufacturer loyalty.

As regards fibres, the situation could best be described as confused and chaotic. People are confused and ignorant about what the different man-made fibres are, what properties they have and how they must be treated. Some people swear by some man-made fibres and curse others; other people reverse the process. Judgments are often based on ignorance or on one unfortunate experience of a garment going wrong. The whole situation is dedevilled by the wide variety of different fibres and techniques of spinning, weaving and knitting. One feels the consumer is confronted with a situation where there is just too much to learn, and he or she gives up. In effect this means not only that the consumer may reject on inadequate grounds as mentioned above, but also may develop loyalties on equally inadequate grounds without real knowledge of substitutes. Confusion is worse confounded because foreign man-made fibres are called by different names from the equivalent British ones. This contributes something to the loyalty to natural fibres, particularly wool, and has strengthened the effect of the Woolmark advertising. Women are quite in agreement that wool has many tricky characteristics, but they know them and on the whole they know how to handle them. They know where they are with wool and that is more than can be said of many man-made fibres.

The role of the brand

Clothes are sold with a variety of labels on them, including manufacturers' brands, retailers' brands, fibre brands and labels indicating a designer's name.

These various different types of brand labels do not appear to be clearly distinguished by consumers; (in fact, this may reflect the fact that there is overlap between these various categories of brands).

Manufacturers' brand names and retailers' brand names appear to fulfil a similar function for the majority of consumers, certain manufacturers being closely associated with certain retail outlets or chains of retail outlets (see section 4 of this Appendix). Consumers are generally aware that by going into a particular shop they are going to be confronted with a single brand or a limited range of manufacturers.

In general, it appears that the brand is a subsidiary factor in purchasing clothes. Often a consumer develops a preference for a brand from previous experience that the particular manufacturer concerned makes clothes broadly in line with his or her own personal style. Such a consumer probably bought a garment of that brand in the first instance, not on the basis of the brand itself, but because the style, colour and appearance of the garment fitted his or her own personal style; there is then a tendency to seek the same brand again. As certain brands are associated with certain retail outlets, consumers often know where to find them.

Many, however, felt that brand had little significance for their clothes. When buying, they looked first at the size, then at style, colour and price; they might then look at the brand to see if it was familiar, or one which they had purchased before. If so, this was an added attraction (unless the previous garment had been unsatisfactory); if it was not a familiar brand, then this did not influence the decision to purchase.

Others (this was more common amongst adolescents) stated that they had little or no awareness of brands and that this played an insignificant part in their purchasing, though most adolescents appear to be aware of Levi's jeans. This may be a reflection of their lack of experience to know which particular brand suited them. On the other hand, it may well be linked with the tendency for adolescents to categorise particular shops as catering for them, whilst the brand sold within that shop becomes irrelevant.

The brand is sometimes seen as a guarantee of quality. This, however, does not emerge as a major factor in the market—it was perhaps most strongly felt in the field of men's shirts—the field in which there was the greatest degree of brand awareness. (Perhaps there is more branding in this field.)

As far as retailers' brands are concerned, those retailers with brands of their own are well known and frequently referred to.

Brand labels associated with particular clothes designers appear to play a relatively minor part in shaping consumer attitudes. In some instances, such labels were regarded somewhat cynically.

4 ATTITUDES TOWARDS RETAIL OUTLETS FOR CLOTHES

The development of a pattern of shopping for clothes

The development of a personal style in clothing and of a sense of an appropriate price for a particular item are associated with the development of a pattern of shopping for clothes.

Through experience, consumers learn the type of shop which sells the type of clothes they want at roughly the right price level.

Quite clearly these may be different shops for different items of clothing.

Once such a pattern has developed it appears relatively rare for a consumer to look elsewhere, that is in a shop selling a completely different style of clothes, or selling clothes in a completely different price range.

Often this restricts greatly the range of choice of shops. Difficulties with sizing sometimes mean that when an individual has found a shop which stocks clothes which will fit him he continues to go there.

Overall changes in fashion do not appear to affect this pattern of shopping.

A striking feature of the interviews with working adolescents was the way in which a number of them had developed a pattern of shopping. They knew the particular shops which stocked the latest fashions and had little idea of looking at all at others which did not appear to have the same image.

It appears that changes in this shopping pattern take place slowly except where radical changes in an individual's way of life bring about radical changes in his attitude to clothing.

One other form of change did emerge in the group discussion in Scotland, where a new type of retail outlet had been opened, a discount house. This did appear to have radically changed the fairly long lasting habits of some consumers, who had found clothes there in accordance with their personal style.

The need for a choice of outlets

The forces tending to restrict choice of outlets have been outlined, but there are, for many consumers, opposite forces working, particularly for major items of outer clothing.

Many of those taking part in this study enjoyed shopping for clothes. Part of this enjoyment was going round from retailer to retailer trying to get the best value, or an attractive style or colour. In some instances this was seen as a family outing, which took place in the centre of a city on a crowded Saturday.

This type of enjoyment depended upon there being a number of outlets, of a similar type, which can be visited, or at least the clothes inspected in the window.

Local suburban shops were seen to be operating under a severe handicap in this respect. Not only are they smaller and so the range of choice available within them is restricted, but also they are usually restricted in number. People going on a 'clothes shopping expedition' do not go to the local suburban shops, but to where there are a number of shops available; in London this is not necessarily the West End, but expeditions are made to the larger suburban centres.

The feeling was also expressed that because local suburban shops did not have competition from other local shops, then they may tend to charge more for a similar article.

It may be that the development of out-of-town shopping areas might suffer from similar handicaps.

The experience of a number of respondents sheds light on the position of the local suburban clothes shop. They had spent some time in the city centre looking for a particular item of clothing. On their return home, later, they had found exactly what they were looking for in the local shop. Possibly they had been overwhelmed by the range of choice available in the city centre and found it impossible to choose. In the local shop the range of choice was much more restricted; choosing became a more realistic exercise. But having already looked around a number of other shops, they had a basis for comparison and could verify that they were not being overcharged.

Categories of retail outlets

Chain stores

The image of chain stores in the retail clothing market appears dominated, as far as many items of clothing are concerned, by the unique position of Marks and Spencer. It was particularly significant for 'routine purchases'.

For respondents their image is of high quality goods, value for money, and well-finished—but also, of major importance, of 'taking anything back'. It was recognised that other shops would accept returned goods, but it was their willingness to do so without fuss or rancour that was the distinguishing feature of Marks and Spencer.

This, together with their image of quality and value for money appears to give customers a sense of confidence; if they have made a mistake at least it can be rectified.

Other 'walk round' chain stores of the same type as Marks and Spencers were seen rather as following in their wake.

Other chain stores were classified according to range of garments, price level and style. This type of classification emerges clearly in men's tailoring, where certain shops are seen as broadly in direct competition with each other, selling essentially the same type of suit. If a man is contemplating buying a suit from one of these shops—it appears that he will often look at the others (if only in the window) before coming to a final decision. Of course, there are different styles and price ranges.

Similarly, as far as women's clothes are concerned, shops are seen as operating within a certain price or style range and not in direct competition with shops retailing clothes in other ranges.

Department stores

It was only rarely that respondents spoke of department stores in the context of clothing, possibly because they were primarily perceived as retailers of other commodities.

Thus no clear conception of the role of department stores has emerged from the study.

Individual outlets and boutiques

Sometimes, and perhaps especially in small towns, individuals have developed a personal relationship with the owner or members of staff of a particular shop. There is then a tendency for them to return there.

On the other hand, it is far more frequent for people to feel afraid to go into individual shops, or indeed branches of some chain stores, in case they are trapped and are unable to extricate themselves without buying anything.

Seemingly this is why a number of respondents also stated that it was only for occasional impulse purchases, or for items displayed in a sale, that they would enter a local shop.

A variation of this attitude was expressed by a number of older women, who felt that in certain shops the assistants were working on commission and consequently over-selling. They described situations in which they felt that assistants had told them that a dress or suit fitted them or suited them whilst they were perfectly sure that it did not.

Feelings about shop assistants in clothing shops appeared to be much more favourable amongst adolescents than adults. Occasionally adolescents described the enjoyment which they gained from going round 'boutiques' etc, and appeared able to talk with the assistants without fear of being pushed into an unwanted purchase. It appears here that for the adolescent, 'boutiques' are selling an atmosphere as much as items of clothing.

Certain attributes of that atmosphere, and in particular the type of social relationship involved with the sales staff, could have a wider appeal than merely to the current adolescent market.

Mail order

Occasionally respondents bought clothes through mail order.

This means of purchasing clothes was seen to possess a number of disadvantages; the strongest that it is difficult to check the quality and value of the clothes. A number of respondents used mail order for household goods of well known brands where it was possible to verify the price. For clothes, however, it was felt that mail order firms used their own brand names, which were meaningless and did not enable the price to be compared with articles in the shops. One or two examples were quoted where respondents considered that a basis of comparison had been established, and the mail order company was more expensive. Moreover, the range of choice available is seen as very limited.

It was also felt to be difficult to return the unwanted goods. It was even more difficult to return those that had no identifiable fault, but when they arrived turned out to be disappointing in colour or quality.

Many associated mail order with hire purchase. Some are against this on principle; others, whilst accepting the system for some purchases, would not do so for clothes. They 'could be worn out before you had finished paying for them'. But spreading the payment is seen as an advantage for some.

5 OTHER FACTORS AFFECTING ATTITUDES TO CLOTHING

Garment categories and classifications

Consumers do not regard the boundaries between the categories as rigid. Garments of various types are substitutes for each other in use.

For example, failure to find a suit she liked might lead a woman to postpone purchase, but it might lead her to buy a dress or a skirt and matching sweater instead. Categories were somewhat more rigid for men, but still by no means mutually exclusive.

The trend to informality is likely to effect some change in balance between the categories, supporting informal as against formal.

Slacks, non-matching jackets or blazers, sweaters or woollen shirts are likely to gain at the expense of suits for men. Skirts and slacks and sweaters and soft knitted suits are likely to gain from more tailored suits and winter dresses for women, although summer dresses, being easy and

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informal, are more likely to hold their position. These, of course, are present trends; they may easily be reversed.

Classification of clothes

Consumers classify clothes in a number of different ways, one of which corresponds with the shops in which they buy them. However, the following are some of the types of classifications which do emerge:

Visible/invisible

One of the functions of clothing is to convey an image of oneself to others. Clothes which are visible have a different role in this respect from those which are not. Underclothes are therefore separated from outer clothes. This was particularly well illustrated by one male student taking part in the study. During the interview all the discussion had focused on visible clothes and he had been explicitly aware of the fact that by wearing certain types of clothes he was making a certain type of communication to others. He was then asked about underclothes and replied, 'I don't wear a vest and as far as pants are concerned I just change them when they are dirty, and go to Marks and Spencer's when they are worn out. It doesn't matter what they look like; by the time a person gets to seeing you in your underpants they should have made up their minds by other criteria about what sort of person you are!'

The degree of interest

Some items of clothing are seen as more 'interesting' than others. By and large these correspond with the visible items. Virtually all the discussion in the groups centred on these items and people found it difficult to think of much to say about others.

The major focus of interest was, for men, in suits, jackets and trousers, and then, some distance behind, in shirts. As far as women are concerned the major focus was in suits, dresses, coats, sweaters and skirts.

Not only, of course, are these the visible clothes, they are also the major items of expenditure. At the same time, although a visible and relatively expensive garment, men's overcoats did not play an important part in spontaneous discussion.

Usage

Clothes may be classified according to the use to which they are put: 'best' clothes, working clothes, leisure clothes, clothes for holidays.

Sizing

The topic of sizes was raised spontaneously by all women respondents, and indeed it was a subject where it was sometimes difficult to terminate the discussion and move onto other topics. Some men also raised the subject. It appears that for those who have difficulty in finding clothes to fit them, or in finding clothes in line with their own personal style, which fit them, the issue of sizing becomes an extremely important one and tends to dominate the whole range of attitudes towards clothes. For those who do not have difficulty with sizes and who often refer to themselves as being 'stock size' the question of sizing is far less important, and certainly does not emerge as dominating all aspects of clothes' purchasing.

The problems of sizing fall into a number of categories:

Individual peculiarities of shape. Such people usually appreciate that this is an individual peculiarity, and have found means of coping with it, by having clothes specially made or alterations carried out.

The difficulty experienced by those who consider that their shape is not an unusual one and that manufacturers have not paid sufficient attention to people like themselves.The most common example of this appears to be middle-aged women who feel that the choice of clothes available in sizes to fit them is small and not in line with their own personal style; manufacturers are accused of paying too much attention to younger women.

Those difficulties of sizing which are only minor but which are nevertheless a source of irritation. Often those who experience problems in this category have found a particular shop or a particular brand with suitable sizes in stock, continue to use it and are reluctant to change.

Occasionally the problem of large gaps between stock sizes emerges. Others, however, found it irritating that sizes vary between manufacturers and even between garments from the same manufacturer. There was some evidence that where a particular manufacturer's sizes were felt to be standardised, consumers tended to look first amongst the clothes available from that manufacturer It is possible that standardisation of sizes would slightly change consumers' patterns of choice and extend the areas and shops into which they would be willing to look for clothes. However, this question would need further investigation before any more predictions could be made.

The problem of garments which are sold by size measured on one dimension: most frequently mentioned were shirts, where many manufacturers measure only the neck size.

Occasionally this appears as a reason for buying made-to-measure shirts and sometimes as a reason for buying shirts from the minority of manufacturers who do measure other dimensions. Occasionally men compared English shirts unfavourably with American ones. On the whole, however, this was seen as a minor irritant, and men wear shirts which are baggy and do not fit, rather than buy specially from particular manufacturers.

Clearly the question of sizing is more critical in some garments than others. It tends to be critical in those garments which are the subject of most discussion, and which are generally those which are regarded as the major items of clothing—suits, dresses, jackets, shirts, coats, etc.

For a proportion of the market, therefore, sizing is seen as an important constraint on the range of choice; only when they have solved the problem of sizing can buyers begin to exercise choice about styling and colour. For others, the problem is more an annoyance and irritation than a serious constraint on their choice.

One of the men interviewed had spent some time in the United States where he stated that the normal practice in retailing men's trousers was to leave the bottoms to be cut off and sewn to suit the individual customer. He was puzzled about why this practice was not followed in the United Kingdom.

Maintenance and easy-care

The major distinctions seen between clothes from the point of view of maintenance are between those which need to be dry cleaned and those which can be washed, and between those which require washing and ironing and those which merely require washing.

Clearly the vast majority of consumers are aware of the trend towards easier maintenance of clothes, but there appears a tendency for some housewives to change their habits of maintenance rather reluctantly. It appears not infrequent for a housewife (particularly older housewives) to feel it necessary 'just to run an iron over' their husband's drip-dry shirts; they almost feel it wrong for things to be made too easy for them. There seems a slight parallel here with cake mixes which were made too easy for the housewife until she was told to 'add an egg'. But this attitude might be expected gradually to die out as 'easy-care' clothes become more firmly established.

Natural and synthetic fibres

We wish to emphasise the strength of the preference for natural fibres, in terms of the subjective experience of wearing them.

Their advantages are described in such terms as 'they breathe', 'they are alive', 'they are kinder', 'they have character', and so on. This matches a wider consumer pattern of strong preferences for 'natural things' even if practical considerations may make it difficult or impossible to have them. In the case of clothes, counteracting factors to the longing for natural fibres include ease of maintenance, durability and price. Wool survives this competition better than cotton, partly because its greater use in outerwear facilitates a higher price. Women often express a real longing for cotton underwear and nightwear, but just rule it out usually on the grounds of price. Men, in fact, still use more cotton and wool for underwear than women.

In many instances there is a straight rejection of existing man-made fibres for certain items of clothing. This attitude is, however, almost entirely confined to men and to two particular items of clothing—shirts and socks. Man-made fibres have advantages in terms of washing and maintenance, but for some men these are completely outweighed by the fact that they are felt 'not to breathe', or to allow one's body to breathe. Such attitudes were frequently very strongly felt and led to a complete rejection of man-made fibres for these garments. A few men stated that they did not like man-made fibres in shirts, but were prepared to wear them because the advantages in washing outweighed these disadvantages. Others completely accepted 'nylon shirts', finding they had no disadvantages at all.

The male adolescents appeared much less aware of distinctions between man-made fibres and natural fibres and did not feel strongly about them.

A number of men talked also about terylene and wool mixtures in suits and trousers, compared with pure wool. However, many men were not aware of the material from which their suits were made and would judge the fabric in the shop by its 'feel' rather than by a label stating the composition of the fibre.

The composition of the fibre appears important in women's clothes largely from the point of view of whether the garment is washable or requires dry cleaning, but only as a secondary factor. A garment which might otherwise have been chosen may sometimes be rejected if the label states that it requires dry cleaning. This is particularly liable to happen when women are buying children's clothing.

It appears from the work undertaken so far that consumers are generally prepared to accept new man-made fibres, if they are convinced, from experience or recommendation, that their maintenance is going to be easier than natural fibres.

Awareness of, and attitudes to, types of cloth

Awareness of differences is very low. Consumers tend to make judgments based on assumptions on the grounds of appearance.

Garments made from cloth that looks woven *is* 'woven' as far as they are concerned. 'Knitted' tends to mean garments or cloth with obvious knitting stitches, ie like those a woman makes herself when she hand or machine knits. Choice is made between 'woven' (not necessarily woven) and 'knitted' (not necessarily knitted); each being preferred for different types of garment or purpose, e.g. 'woven' is for men's suits, most women's skirts, slacks, women's outdoor suits and overcoats. 'Knitted' is for sweaters, jersey suits and dresses.

Within the perceived categories, choices are made on grounds other than fabric production techniques, eg colour, texture, durability, hold of shape, creasability and so on.

Awareness of the national origin of clothes

This was absolutely minimal. It really could hardly be said to exist except in certain small sections of the market.

Disposable clothes

Disposable clothes are seen by consumers as a completely different concept from normal clothing. All of those interviewed appeared aware of the development of disposable clothes. None had any first hand experience of wearing them.

They were invariably associated with paper, and this raised strong anxieties about tearing and about what happened if they got wet. It is possible that the image of disposable paper clothes has not been improved by the fact that a cereal company has used paper dresses as a premium offer. Two of our respondents had received them, but had found them impossible to wear.

From the point of view of the development of the market for such clothes, it would appear significant that very few of our respondents could visualise themselves using them for everyday wear, but a large number could visualise themselves using them for special occasions (possibly weddings or evening dresses) and for travelling.

Others visualised not so much special garments but disposable versions of ordinary garments—particularly shirts and underwear. These they could visualise using when travelling or on holiday, but reverting to non-disposable clothes for normal everyday use. Several drew the parallel with babies nappies, where some mothers used disposable nappies away from home, where they avoided the difficulty of washing, but reverted to towelling nappies at home.

From the point of view of the consumer attitudes encountered so far, this would appear a more fruitful line of development than attempting to market them for everyday use.

Cost is likely to be a barrier to its use.

For underwear, disposable clothes would have to compete with very cheap, easy-care man-made fibre garments. In addition it is important to remember that many people do not like to dispose of clothes, especially if they like them very much, and would grudge the time and effort necessary for frequent shopping for new clothes.

Home dressmaking

There is a considerable degree of variation in the extent to which women make clothes for themselves or for their children. On the other hand, for a given individual this does not appear to change a great deal through time, except when changes occur in the overall way of life. It appears to be a skill which a woman feels she either has, or has not at all. If she does possess this skill, its use is seen primarily as a means of saving money, (and by implication, being seen as a good wife and mother) and sometimes to obtain a better finished garment than those seemingly available in the shops. Occasionally it was seen as a means of coping with problems of sizing, or it enabled people to have a particular style.

A number of women seem to take up home dressmaking or do more than before when they give up work, and settle down as non-employed housewives, often just before the birth of their first child.

It does not seem likely that these women would keep up the same amount of home dressmaking in later phases of marriage, eg if they were to go back to work, had less time and more money, and needed more formal clothes.

Most women thought that they would use home dressmaking as one way of coping if there were an increase in the price of clothes, relative to other things, or a decrease in finance available for clothes for other reasons.

Children's clothes

No children took part in this study, and consequently we have no first hand evidence of their attitudes. Many of those interviewed were, however, parents and the topic of children's clothing was discussed with them. Almost invariably the responsibility for choosing children's clothing is seen as lying with the mother.

A major feature of parents' attitudes towards children's clothing is the attempt to achieve an optimum balance between a number of factors, including size, durability, cost, function and appearance. Sizing is clearly a great problem, as is the lack of standardisation.

The point at which a child takes over responsibility for the purchasing of its own clothes and the nature of this responsibility were discussed. The only conclusion which can be drawn from the work so far is that there is an enormous range of variation. At one extreme a few mothers felt that from about the age of seven they allowed their children to choose their clothes (albeit within a limited range which may have been partly determined by the type of shop to which they were taken). At the other extreme some felt that they had a great deal of influence over the clothes that their fifteen or sixteen year old children wore, and accompanied them on shopping expeditions. Other mothers expressed horror at the thought of attempting this.

At the same time, a number of adolescents taking part in the study spontaneously stated that they considered their parents had a great deal of influence in the clothes they wore, if only implicitly.

Many people consider that children's clothes are too expensive.

Development of teenage habits and attitudes in later life

The evidence we have suggests that teenage habits and attitudes do not persist in adult life, particularly after marriage and the birth of children. Choice of clothes in later life is likely to be determined more by current fashion as adapted to personal style, than to the fact that, for example, a man may have been a 'Carnaby Street type' in his youth.

Exploration of clothing and styles is used as a part of a general search for, and establishment of, adult identity. Once it is established, the style of clothing settles down. Working class young people are likely to spend relatively and absolutely less when they are older because their income does not increase very much, whereas the calls on it may be greatly increased. Middle class young people are quite likely to spend absolutely or even relatively more in relation to income, as their incomes increase, sometimes rapidly, when they are young adults, and because their professions or occupations may demand a fairly high standard of business dress.

Appendix 5 Technological progress

The technological developments likely to affect the hosiery and knitwear industry over the next 5—10 years and their commercial implications

1 INTRODUCTION

Great technological developments will affect the hosiery and knitwear industry in the next five to ten years, especially:

Continuous development of man-made fibres and the blends of these with natural fibres.

Rapid technological advances in knitting machinery, which will enable the production of complex constructions at very high knitting speeds.

Extension of knitted fabrics into men's outerwear.

Greater availability of easy-care fabrics.

The advent of automatic and semi-automatic machinery speeded by growing competition for labour and high training costs.

Making-up of garments by welding and adhesives.

The development of binding and fusing of laminates and interlining.

Many of these have already occurred on a limited scale in certain sections of the industry; a wider and more intensive application of the technical innovations could increase the output potential.

2 SUMMARY

Fibres

The chief developments in man-made fibres will probably be increased output of continuous filament yarns, which eliminate spinning, and production of filament with a central cavity like a long tube. Thus fibres will be produced at minimum cost with maximum thermal insulation properties, and more closely simulating natural fibres.

There will be an increase in the number of blends of fibres: different man-made fibres will be blended as well as the existing blends of natural and man-mades to obtain optimal combinations of properties and characteristics.

Natural fibres will develop easy-care and shrink resistant properties.

The implications for the knitting industry of these developments are three-fold. Firstly, the prices of the finished garments are unlikely to be affected under conditions of fibre shortage. As the supply of fibres increases, following continued investment in manufacturing capacity, the knitting industry will meet steadier fibre prices. Secondly, the quality of finished garments is likely to improve. Thirdly, these developments in fibres are not likely to affect the output potential of the industry.

Weft knitting

Future technological development will be in general towards achieving higher machine operating speeds. New metallurgical advances may be required to provide the materials necessary for the reliability of high speed moving parts. The main developments which we expect are summarised below.

Continued installation of toe closing equipment in the manufacture of stockings is expected to reduce costs by eliminating this as a separate operation.

Improved heat setting equipment is likely to increase the output of hose through this stage of production.

The Rib to Plain fully fashioned knitting machine will eliminate a substantial handling element and is expected to lead to substantial increases in total output; even though the output per flat machine will be reduced due to the increase in work content.

Fully knitted garments from a modified hosiery machine will provide a substantial increase in output potential of the knitted infants' wear sector.

Electronic and electro-mechanical control systems will play a substantial part in increasing machine utilisation with their application to pattern changing on machines.

These developments will in the main tend to reduce the work content of the processes in the industry and increase the potential output.

The search for improved labour productivity will result in improved training methods and more detailed method study.

Warp knitting and stitch-bonding

The major development in this sector will be in the greater exploitation of the Co-We-Nit and Malimo knitting techniques. The importance of this sector of the industry is evident when it is realised that, if present trends continue, warp knitting will secure a share of the clothing market equal to those of weft knitting and weaving

Making-up

Important developments are expected in

materials handling
fabric spreading
pattern grading and cutting
lay planning and marking
fabric cutting

which offer scope for increased productivity.

Dyeing and finishing

The rising demand for knitted fabrics will provide the impetus required to increase the output of this industry by adapting traditional methods to the needs of the knitted product. Of prime importance will be the movement towards automated processes brought about by improvements in temperature, cycle and colour control techniques. These will improve the output potential of the industry and increase labour productivity.

High pressure dyeing, solvent processing and screen printing techniques are likely to be improved during the next ten years. The widespread use of differential dyeing may have a radical effect on stock holding policies within the industry.

Whilst the fully automated process is not a viable proposition in the immediate future, current new plant installations go a long way towards reaching this aim.

3 FIBRES

General

Man-made fibres' share of total UK consumption of wool, cotton, and man-made fibres has risen from 47 per cent in 1966 to 55 per cent in 1968. This share is likely to increase to 58 per cent in 1969 (see Chart A20).

Growth within the man-made sector has been almost entirely in synthetic fibres rather than cellulosic fibres. In 1961, about 75 per cent of the UK's man-made fibre output was in cellulosics; by 1968 this share had fallen to approximately 50 per cent (see Chart A21).

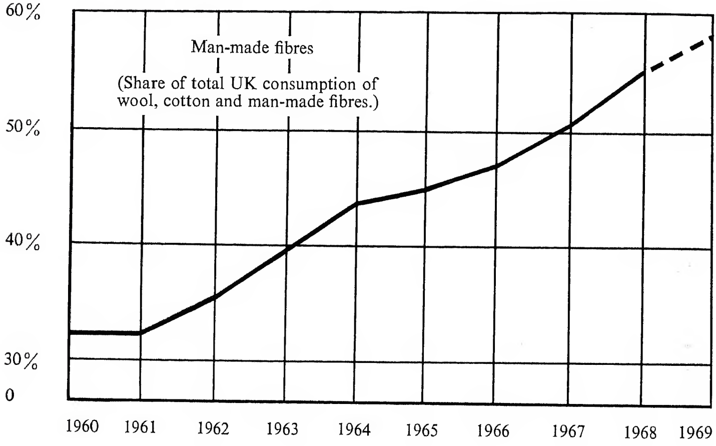
Man-made

The manufacture of man-made fibres started with rayon in the 1920s; acetate and viscose rayon being the two main types. Polyamide (Nylon) was developed by Du Pont in 1938. Later developments have been polyester, acrylics, polyethylenes, polypropylenes, triacetates, elastomerics, polynosics and bi-constituent fibres such as polyamide/polyester; generally these have properties suitable for different end-uses.

Polyamides

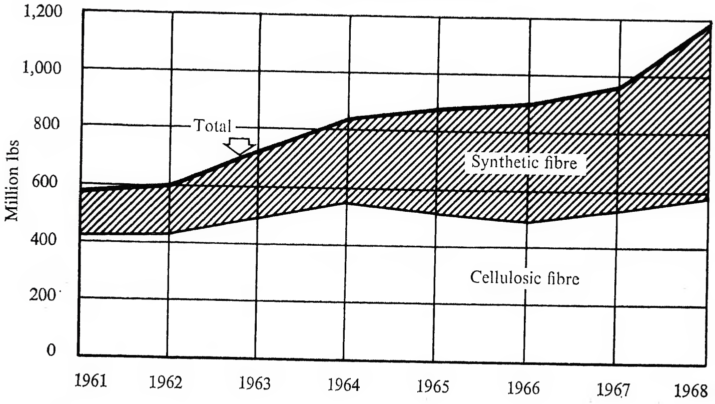
Easy-care properties have enabled nylon to dominate hose, lingerie and shirtings. Future developments will be in the form of bi-constituent fibres in conjunction with polyester. Du Pont have developed Qiana which is composed of minute fibrils of each fibre joined together to form filaments. The result is a silk-like yarn without the defects of silk. The ratio of the two components in this type of fibre to each other can be varied so as to obtain different yarn characteristics for different purposes. Other companies are working on the same type of development and this is expected to lead to some extremely advanced types of yarn for specific end uses.

Chart A20
Man-made fibres, UK market share 1960 to 1968



Source: Financial Times

Chart A21
Man-made fibres, total UK consumption of synthetics and cellulosics



Source: Financial Times

Polyesters

ICI are planning to raise their output to 200 m lbs per annum with the emphasis on Crimplene. It is expected that this will penetrate men's outerwear, whilst the more conventional use of Terylene in synthetic/natural fibre mixtures is also likely to increase its penetration. The proportion of polyester in the polyester/worsted suitings is expected to rise from the current 50 to 75 per cent in the next few years.

A polyester pile fabric is expected to provide an additional source of apparel fabric for garments from gloves and slippers to coats, linings, sportswear and children's wear. The characteristics of this fabric are reported to be excellent whiteness, outstanding wearability and complete machine washability combined with lightweight qualities.

Cotton/polyester blends are expected to grow in importance, but the anti-static problem still remains to be solved.

Acrylics

Acrylics have proved their suitability for use in woven and knitted fabrics as well as knitwear, as Courtaulds' 'Courtelle' has demonstrated. It is expected that the greatest developments will be in knitted fabrics for men's outerwear, as indicated by the introduction of double jersey acrylic with wool. Acrylic blends with other fibres are being developed and will be available in the next few years.

An acrylic bi-component fibre has also been introduced which is well suited to knitwear because of excellent dye fastness, high bulk to weight ratio and its outstanding resilience due to the very high crimp in the fibres. It also provides stability in laundering and resistance to pilling when worn.

Further washability developments are envisaged in an Acrilan/cotton blend developed for men's casual shirts. This has a permanent press finish, and it will appear shortly in the form of a cloth which is fully machine washable with a non-iron finish.

Rayons

In the rayon field, Vincel/cotton blends are in increasing demand for the underwear trade. Another Vincel/cotton development is the 'Lappet' fabric which produces an embroidery effect on the surface of the fabric.

Filament rayon is likely to be used more extensively for the face cloths of laminates where the lining side is made from acetate locknit. The stability of the acetate helps the rayon knitted material and makes available a wide range of open constructions such as Raschels.

There is apparently still reluctance, however, on the part of some manufacturers to regard Vincel blends as advanced types of fabrics and not mere substitutes. This may be due to the relatively low price of Vincel, which so far has given rise to the unfounded suspicion that it is an inferior material.

The art of fibre blending is very old established among the natural fibres. In a similar way blends of man-made fibres both on their own and with natural fibres have played a major role in their development. The more recent idea of mixing the individual filaments of rayon, triacetate and now acetate is an alternative to bi-constituent fibres.

Triacetate is enjoying success in high bulk form.

Natural

Cotton

The International Institute for Cotton, formed in 1967, is active in research, development and promotion of cotton in 13 European countries. In England the Shirley Institute is the country's leading research establishment concerned with cotton, silk, synthetics and blends. Research is being conducted in the fields of easy-care, permanent press, water proofing and flame resistance. The problem is to achieve these properties without sacrificing the major attributes, viz:

Excellent washability
Comfort
Freshness

While the future of cotton blends with man-made fibres is assured, the results of recent research for pure cotton are promising in cotton's fight to retain its market share. The main aim is improved continuous filament fibres and the elimination of spinning.

The Ministry of Technology has recently given support to a new technical approach to spinning by a development contract for a technique which has the ability to spin yarn from loose fibres without rotating the output package. It is expected to achieve substantial increases in productivity, increased output per spinning element, the elimination of clearer winding after spinning and the ability to use coarser input materials. In the long term, this development will certainly help cotton.

Stretch cotton yarns and fabrics may well assume importance in the next 5 years.

Wool

Facing the challenge of the 'fibre to garment' competition of the chemical giants, the wool growers have determined to improve the fibre at the new IWS Technical Centre. The scientists aim to increase wool consumption in clothing by improving the quality and adaptability of wool, and to reduce the cost of wool manufacture. They aim also to discover entirely new uses for wool.

One of their first successes was to enable wool to be machine washed, with a high degree of shrink resistance, improved resistance to abrasion and almost complete elimination of pilling. This development is likely to have a major effect on the pure wool garment market.

Development is also at an advanced stage in new permanent press processes which are applied at the fabric and garment stage.

Other research is in hand to put extra crimp in strong crossbred wools, and to use highly reactive dyes which are cheap and fast even under extended boiling conditions.

Another research project which is very important to garment manufacturers is to establish a method of forecasting cloth shrinkage during the garment making processes.

A new device called the Wira Steam Testing Cylinder has been developed which will indicate the relaxation shrinkage or dimensional changes in fabrics during the various fusing, bonding and pressing operations involved in garment manufacture. This invention, while valuable in itself, may help with the ultimate solution of the problem of supplying knitted fabric to the outerwear manufacturers which is truly pre-shrunk and stable.

The basic requirement is to produce a wool garment which can be tossed into a household washing machine without any more concern than a housewife gives to garments made from cotton or man-made fibres.

4 DEVELOPMENTS IN KNITTING TECHNOLOGY

General

The chief reason for knitting's increasing share of the garment market lies in the advances made in knitting technology. Knitted fabrics have rapidly increased their share of the total fabric market; use in women's wear has been the most important contributor to this growth, both outerwear and underwear. It is already estimated that about half of all the apparel in the world is made from knitted cloths.

Incursions by knitted fabrics into men's wear has been restricted to underwear, leisurewear and shirtings. Initial attempts to manufacture trousers and jackets from knitted fabric were made long before the fabric had been satisfactorily developed for this end use. The problems of bagginess and low cover factor are being overcome.

In the next few years the increasing proportion of household textiles made up from knitted fabrics, eg curtains, sheets, etc, will produce considerable problems of materials handling at all stages, from knitting, through cutting and sewing to packaging.

Knitting has several advantages over weaving: probably the most valid technical advantage is that only in knitting is it possible to take a single step from yarn to finished garment and also work in the dimension. In addition to this, production rates are higher, and overall processing costs are lower than total weaving costs. Details of present and future developments are given below under the main knitting process headings.

Seamless stockings and tights

Technological developments in the manufacture of seamless stockings will be aimed at improving the rate of production and the elimination of separate operations. These advances will lead to improved operative training; closer attention will need to be paid by management to the techniques of method study required to obtain the maximum benefits from the technological changes and operative training.

Output

Greater output will be achieved from increases in the speeds rather than increases in the number of feeds per machine. Although development work has been undertaken on 12 feed machines, the greater part of the current output is from 4 and 8 feed machines. It is likely that the 8 feed machine will be the optimum size because of the physical limitations of installing and operating larger machines.

Higher speeds will depend partly upon the rate of metallurgical advances in developing materials for machine construction which will cater for these higher speeds. The type of yarn used in knitting has a bearing upon the rate of output: the introduction of crepe yarns for stretch stockings significantly reduced the output in the early stages of stretch stocking production.

Toe-closing

The introduction of automatic toe-closing on the knitting machine will eliminate the need for a separate toe stitching operation, thus allowing stockings to go direct from the machine to the dyeing process. The benefit from this is to a small extent offset by the addition of this operation to the knitting machine and this is likely to reduce knitted output per machine by between 1 and 2 per cent. However the effect of this development will be seen in better quality and lower production costs. The extent to which the lower production costs will be reflected in the price to the consumer is dependent upon the competitive situation in the industry.

Stretch crepe yarns

The expectation of single sized stockings and pantie hose to fit all shapes and girths of leg and hip is likely to be modified to a realistic level of at least two sizes in order to accommodate the tremendous variety in girth required to provide a comfortably fitting garment. Of greater significance is the effect of eliminating dye-boarding the stockings.

Boarding is a critical and highly labour intensive operation: stretch stockings, bag dyed, can eliminate this operation, provided that the consumer fully accepts the unevenness of colour arising from the different tensions in different parts of the body.

Knitting developments in the shaping of heels have, to a certain extent, been overtaken by the introduction of crepe hose.

Heat setting machines

Larger and faster heat setting machines are expected to double the output potential of this operation, and are likely to be effective in the next three years.

Folding and packing

Folding and packing machinery has been developed which can improve the productivity in this highly labour intensive operation. Claims of at least 100 per cent improvement have been made for new machinery.

The benefits are likely to be restricted by small orders and non-standard packs required by different retail/wholesale outlets. The full effectiveness of such machinery will only be realised if there is standardisation of packing requirements within the individual companies concerned.

Half hose and socks

The men's sock trade has moved forward relatively slowly, Here the development is towards multi-feeder machines and better stitch patterning facilities.

New single cylinder machines which produce a non-ribbed sock at a lower cost could be a major influence on the market if such a garment gained consumer acceptance. It is possible that automatic toe-closing could be introduced on this type of machine.

Fully fashioned garment knitting

Developments in the seventies will be aimed at producing the completely knitted, fully fashioned garment shapes with a minimum amount of labour. If the developments are successful, only the final trimming will be done by traditional methods and the production rates for garment types could be considerably increased.

Rib to plain

Garment blanks can be produced in one operation by using Rib to Plain fully fashioned machines. These will replace the present method of Rib knitting on V-bed power flat machines which requires hand separating, hand bar loading and transferring, followed by body knitting on the present machine. This development will lead to a lower production rate per knitting machine, but the overall knitting cost should be reduced by approximately 10 per cent.

Power flat V-bed machines

The Rib to Plain process will eliminate the need to use this machine for producing ribs for fashioned knitting. Since 20 per cent of the market for this type of machine was for this purpose, the life of these machines will be prolonged by the development of replacement designs and applications. The most likely outlet appears to be for coarse gauge machines with combined fashioning and stitch transfer ability to produce garments of the fisherman knit type, currently made on hand frames. The Stoll 220 is an example of this type of machine which has been successfully used in the past year.

Fully knitted garments

A complete knitted garment has been produced on what is normally regarded as exclusively a footwear machine. Bentley Engineering Group Ltd have developed a modified stocking machine which gives a shaped garment for infants' wear. The body is tubular and only the sleeve seams and neck trimmings are required to complete the garment. With a production rate of one every three minutes and a substantial cost reduction, the commercial implications should be a considerable increase in output potential, together with price reductions. In the first stage of development this will produce garments for the age groups 3–4 years; this is likely to be extended to garments for 3–14 year-olds. The production of larger sized garments will depend upon the measure of success achieved in overcoming the problems associated with reciprocating heavy machine components.

An automated system of seaming for joining body blanks is being developed by Rimoldi and Detexomat. If this is successful there will be a method of producing basic garment shapes with a minimum of human intervention.

Control systems

The control systems of fully fashioned machines are very advanced; the only further development here would involve the application of computers. One scheme proposed was not successful because no provision was made for monitoring yarn tensions automatically to maintain fabric quality standards. A monitoring system is being tried by HATRA at the present.

Weft knitted fabric

Pattern changes

Developments in recent years have been directed towards increasing the number of feeders to give higher production rates and improved patterning facilities. The major limitation on increasing output at present is the time required for pattern changes. The time taken can be as long as two days. Any improvement on this will make a substantial contribution to machine utilisation and flexibility and also to the variety of fabrics produced. This is particularly important at present in women's apparel, where colour and patterning have reached a high degree of sophistication. The future prospect of a widening market for men's knitted apparel will emphasise the need to combine high machine utilisation with pattern flexibility.

Existing methods of pattern selection include: Dubied's 'Wevenit' using a continuous punched steel band; Morat's 'Moratronic' which is a photo-electric system using a continuous film technique.

Electronic pattern changing will become more widely used: Mecatape have an electro-magnetic selection system, and Stibbe's 'Pattern Master' will use punched tape to control pattern changes.

The commercial implications of these developments stem from increased productivity, arising from better machine utilisation, and greater flexibility. These two factors are likely to provide an increase in output potential, reduce costs, and increase the product variety. The time taken to change patterns can, by these developments, be reduced from hours to minutes.

Circular body fabric machines

These machines produce body length fabrics with ribbed bottoms, but developments in this field may be limited because of competition from jersey and warp knit fabrics.

Knit backing

Patents have been obtained for knitting a fabric backing or lining using circular machines. This method of producing a lined fabric is likely to have a major effect on the outerwear field which has relied heavily in the past upon bonded laminates to provide the necessary cover factor.

Warp knitting—conventional

Tricot

Tricot warp knitting has already seized a major part of the shirting fabric market and is slowly encroaching on dress fabrics; sheets are also a major growth market.

Warp knitting now covers about 5 per cent of the nylon shirting market and more growth is probable.

In the lingerie field, warp knits which have already established a firm hold are expected to increase, particularly in the Raschel knitted lace field.

In addition to the expansion of the shirtings side, development of warp knits is also taking place in the manufacture of men's suitings. These fabrics are made on coarser gauge machines, and are mainly composed of bulked polyester yarns but also of nylon. These give a very smart appearance and offer completely easy-care, ie the suit can be washed and dripped dry and does not require ironing; it is thus ideal for travellers.

The women's dress field will also benefit from new cloth weights which form a new range complementary to the double jersey dress fabrics. Initially these cloths were 8 oz but now the trend is towards 6½ oz, which is being knitted from 150 and 75 denier textured Polyester. The warp knitting machines used produce fabric 130 inches wide in 24 gauge, although to the trade it is being offered as a more conventional 60 inch cloth.

These 2 and 3 bar tricot machines enable fabric to be sold to the trade at about 20s to 23s a yard; this means that a multiple tailor should be able to produce a suit at £20.

Men's slacks at about £5 per pair (retail) and casual jackets are now being developed.

The remaining problem with these new fabrics is excessive shine and glitter, but work on this is proceeding and will produce the desired improvement in the near future.

Raschel knitting

In the seventies we are likely to see the upsurge of a third type of knitted fabric which will result in considerable competition for warp and weft knits, and also for wovens; namely Raschel knitting. These machines are similar to warp knitting machines in that they are rectilinear and form their courses of knitting in parallel.

This means that the needles, each supplied with its own yarn from the supply beams, all perform the same knitting action at the same time in the cycle.

Raschel machines differ from warp knit machines by using latch needles, arranged in a horizontal needle bed, and using a plate to assist in the loop knockover.

The variety of products manufactured on these machines includes fishing nets, hairnets, tubular stockings and panti-hose, plain and patterned lace, blankets, underwear, especially the string vest type, and, more recently, pile fabric which can simulate even grass lawn.

However, the current interest in these machines is for heavier fabrics and particularly those for outerwear.

Unconventional warp knitting and stitch-bonding

The most spectacular achievement, however, is the development of a Raschel machine capable of knitting a simulated woven fabric. This technique in the UK is called Co-We-Nit, and provides a knitting speed which produces fabric several times faster than the loom. The important feature of this type of knit is that Co-We-Nit fabric embodies interlaced warp and weft threads held together by chains of stitches which may be concealed or used as part of the pattern complex. We believe that this development has limited potential and in due course similar fabrics may be produced on more versatile machines.

In Eastern Germany, a similar development is called Malimo, and machines of this make operating in Yorkshire can produce fabric at rates between 2 and 5 yards per minute, depending on the stitch length. Furthermore, the Malimo machine will operate unattended for 24 hours per day and requires very little maintenance. In this machine, the conventional tricot and chain stitch can be used, and gauges can be supplied in 10, 12, 14, 18 and, with further development, finer than this.

The 'sewing' thread which fastens the weft and warp threads must be a strong yarn, but the other two may be soft and of novelty design. The resultant primary fabric from this process is a firm cloth. It has the suppleness of a knit but the stability of a woven.

The Malimo system has two complementary processes:

Malipol, which produces raised and drawn surfaces,

Maliwatt, which produces fleeces and waddings.

The great advantage of the Malimo machine is the scope it provides for really good economy lines in any type of fibre, and fashion lines at competitive prices. Because it uses a three yarn system, Malimo introduces an additional fashion dimension potential; even if warp and weft yarns are of the same fibre, the third can be a contrast thread. More than one novelty yarn can be used and the whole system lends itself to differential dye and cross-dye methods in the piece.

The limitation of this process is that the fabric produced is, by our standards, inferior to conventional knits, so that, unless it can be used for short-life garments, its market may be limited, as at present, to the 'Iron Curtain' countries.

The commercial implications for the knitting industry are:

Quality The quality of the fabric produced by Co-We-Nit should be sufficient to provide competition for existing traditional methods of fabric manufacture. The future of Malimo in this country is still in doubt.

Price Substantial benefits in lower costs and prices are claimed, but have yet to be justified in the UK.

Output The widespread introduction of these processes into the UK will increase the output potential of the industry.

5 DEVELOPMENTS IN THE MAKING UP OF KNITTED GARMENTS

Preparation and cutting of knitted piece goods

This section deals with developments in:

Materials handling

Fabric spreading

Pattern grading and cutting

Lay planning

Lay marking

Fabric cutting.

Materials handling

The major problem in handling knitted piece goods is the instability of the fabric. It is known that better cloth utilisation will result from the use of longer and wider pieces, but this approach is limited by fabric instability and the maximum fabric size available from existing machines.

These benefits are primarily in the form of reduced end losses, resulting from longer pieces and better lay efficiencies if wider fabric is used.

Opposed to these are bulky, unstable bolts if it is possible to knit in larger pieces, or limitations resulting from the machine size and type. In the case of rotating needle machines, the piece length is limited to approximately 50 yards. In rotating cam box machines, any length of fabric could be handled.

In the future, greater use will be made of special-purpose handling equipment designed to cover all stages of the process, from knitting to storage and cutting room and ultimately to spreading.

Particular attention will be paid to stacking materials to promote efficient utilisation of space and labour.

Commercial implications

Improved materials handling will reduce the materials cost of the garments, though not enough to affect the final selling price except in a highly competitive situation. A secondary benefit will be in increasing the labour productivity at the laying-up and marking-in stage where bulk quantities are being produced and handled.

Fabric spreading

Fabric spreading equipment which will be in demand will incorporate:

tension-free laying to prevent fabric 'creep' after final cutting. This is always a problem with knitted fabrics;

accuracy in maintaining edge control;

control of the fabric at the ends of the lay, both to maintain correct tension and to control lay end wastage.

The leading manufacturers of fabric spreading machines are incorporating in their recent models features designed to give the controls mentioned. Of these the most notable are CRA Champion and Philips.

A greater number of models also include electrically operated cutters which enable the fabric to be laid with the face in one direction. This is an important development in automatic spreading, because trends in materials handling in the sewing room often require the stack of cut parts to be laid thus.

With regard to the forecast use of wider fabrics, there is already available a spreading machine which will take fabric up to 135 inches wide, and the manufacturer will make wider machines to order. The most immediate application of machines of this width is in the warp knit field.

Machine manufacturers will be able to meet future demands for spreading machines which will provide accurate control of laying ply on ply, be automatic in operation, and cope with wider cloth pieces.

Commercial implications

Cost of garments Improved spreading eequipment will assist in the overall productivity improvements expected, and thus minimise wage-cost increases.

Quality The quality of garments will be maintained and improved as a result of the greater control over fabrics as they are being laid up; which will permit more accurate cutting; this facilitates garment assembly and yields more accurate sizes for the wearer.

Capacity Increased demand for bulk production quantities at the cutting stage will stimulate the greater use of these techniques and, once applied, they can contribute to increasing the potential output.

Pattern grading and cutting and lay planning

These operations have been included in a common heading because the developments in computer control of all this work are capable of realisation to a wide extent in the next ten years. Work has been carried out in America and Britain which demonstrates the application of computers to the production of lowest cost cutting programmes. These take account of constraints regarding delivery promises, balancing of work and machine capacity and the availability of all components necessary to putting selected orders into work.

The basis is linear programming, which has been used to great cost saving effect in a variety of industries for many years.

Great expense would be involved for a company to develop this application by itself.

The wool textile industry has given an indication of how development in this field will take place, in the project launched in the early part of this year, to develop computer applications suitable for both large and small companies.

An aid to efficient fabric utilisation which has already penetrated all sectors of the clothing industry is that based upon miniature pattern lay planning. The systems produce one-fifth scale patterns by means of a pantograph linked to a cutting device. These patterns are then easily manipulated, and their smallness enables the lay planner to have an overall view of the whole lay, facilitating the arrangement of the patterns so that they cover the least area. This is photographed for use as a guide to the most economic way of marking in the actual lay. The photograph is then filed for future use.

A valuable supplement to this system is the accurate determination of the total area of all the patterns in the lay. If this total is related to the area of cloth occupied by the marked-in lay, a wastage per cent can be calculated.

It is in the establishment of controls of this nature, made possible by recent developments of measuring devices, that future developments in cloth economy will lie.

Commercial implications

Cost of garments These techniques when fully implemented will improve the utilisation of materials and thus keep costs in check. We would expect cloth utilisation to be increased by 2 per cent if all the measures described are implemented.

Quality These methods will make possible more accurate cutting and thus a more uniform standard of quality. This facilitates garment assembly and yields more accurate sizes for the consumer.

Lay-marking

Devices for the reproduction of lay markers have followed office duplication methods—spirit-duplicating and photocopying.

Both spirit-duplicating and photocopying have the advantages of rapidly making clear, accurate copies of lays from masters which take little storage space when filed for future use.

Another system of lay-marking, which will be used to a greater extent in outerwear, is spray-marking—the Lanner system. The patterns themselves, made of moisture resistant board, eg plastic film, are laid upon the fabric to be cut. The patterns are held in position by netting, and a dye is sprayed along the length and width of the lay. Thus, the patterns provide the outline for cutting, which is as accurate as the patterns themselves.

Commercial implications:

Cost The reproduction of lay-markers will assist improved productivity, and thus keep costs in check.

Quantity of garments available The output potential of the industry can be increased by the application of lay-marking techniques.

Fabric cutting

Future developments in the Sewing Room include mechanical assistance for the machinist in both handling and sewing. The use of profile stitchers, or machines which can be dial set to include the correct amount of fullness in a seam, are just two examples of sewing methods which demand accuracy in the cut work.

Thus cutting in future years must become more consistently accurate than at present.

The variety of cutting instruments in use today will still be seen in ten years' time.

Band-knife cutting

Developments in band-knife usage have been mainly in making the machine mobile. This is to reduce the amount of materials handling and disturbance of lay sections which are caused by taking the cloth to a band-knife in a fixed position.

Modern band-knives incorporate variable speed drives, so that the machine can be adjusted for the cutting of thermoplastic materials without fusing the edges.

Die cutting

The chief advantages of die cutting are that extremely accurate cutting is achieved by semi-skilled labour. Die cutting of knitted fabrics is already being used extensively by the more progressive cut and sewn manufacturers, particularly in interlock lingerie and shirts, Developments by the leading manufacturers of die cutting machinery, notably Samco, will lead to greater use of this technique in all areas except fully fashioned. The chief limitation at present is the cost of dies where relatively short runs are involved. Developments in the design of strip blades will reduce the cost to a competitive level.

Hand cutting

Fully fashioned knitwear is a large and important sector of the industry which will not be able to make use of the developments in bulk cutting.

Today, hand shears are much in evidence. In the future, more use will be made of such cutters as Kuris electric shears for the cutting of single plies of fabric.

General

Within ten years, computers programmed to control the cutting of patterns, and the subsequent reproduction of the pattern contours for guiding a cloth-cutting head, will be in use among the larger companies in the Industry.

Recent experiments with laser beams and water jets as cutting instruments will soon lead to the production of a viable system of cutting, computerised and wholly automatic.

Commercial implications:

Cost The application of bulk cutting, in greater volume, can provide increases in productivity.

Quality of garments The quality of finished garments will improve as a result of more accurate cutting methods.

Quantity of garments available The output potential of the industry can be increased by the more concentrated application of bulk cutting techniques.

Garment construction—sewing

Dependence upon female labour, and the fact that no other major industry is so completely reliant upon human operators causes a situation whose features include:

Compared with almost all other industries, the training of a sewing machine operator is lengthy and complex.

Labour turnover is high, and the time-keeping of married women with families is irregular.

The concentration and judgment demanded of operators in obtaining a satisfactory output of high standard imposes strains which are greater than in other industries employing mainly women. The level of earnings does not compensate for these strains.

Technological developments in the sewing room therefore seek to mechanise, to reduce the skill needed and to create greater flexibility in use of labour.

In the next ten years the sewing machine will still be the major means of garment construction. But operations such as the interlining, button-holing, attachment of labels and motifs and other short seaming, time consuming work will be simplified by non-sewing methods. The predominance of overlocking over lockstitch machining is, of course, a considerable advantage in the knitwear field.

We examine ways of reducing the skill and work content under these headings:

Work aids

Sewing aids

Non-sewing construction methods

Work aids

Until the textile industries can provide fabrics identical in shade and handle from dye lot to dye lot, some system of batching cut parts together through making up is necessary to ensure that all components of a garment are cut from the same, or matched, pieces of cloth. The most common method used for batching is tying bundles; untying and re-tying these and folding each part separately after processing is time consuming, tiring for the operator and non-productive.

Pneumatic power

Pneumatic devices have been designed which considerably reduce the time for stacking aside finished parts.

These stackers are able to handle a wide range of part sizes, and the control of the parts held in the stacker is firm enough for the device to be used even with slippery knitted nylons.

More and more medium and large size establishments are installing compressors to feed pneumatic systems, so that the use of pneumatic power to drive handling devices, tape and thread cutters of the impact variety and many other work aids, can be expected.

Work transportation

Also receiving attention is the movement of work to and from each operator. Development has been towards work transporters. When an operator needs replenishment, signals are sent to a controller, who despatches material by the transporter, directly to the operator.

Systems of work transporting such as Etough-Satra and Eton will become more widely used. But workhorses (or trolleys), tailormade transporter rails and the planned utilisation of service labour will probably be developed and used more widely in the next ten years.

Needle positioners and trimmers

In the course of a work-shift, the majority of sewing machine operators expend considerable time and energy in rotating the handwheel to withdraw garment parts from the machine and cutting, with scissors, the top and bobbin threads, A wide range of needle positioners and thread trimming devices have been developed to reduce this wastage. Of these, the most notable is the underbed trimming device.

Machine tables and work place engineering

Surprisingly few changes have been made to the rectangular shape of the machine table top. A change in the shape and in the construction of the table supports would often assist the operator in handling the work in process. In the near future, more sewing rooms will have machine tables specially designed for a particular operation. There are unit stands available designed to suit specific operations, but the main future trend will embody 'home-made' adjustments based on a study of an operation's needs. Greater use will therefore be made of the Pedestal Stand principle.

Work measurement and method study

Forms of work measurement and usually piece rates set by rate fixers have long been in use in the industry. In a minority of firms, work measurement has developed into breaking down of the job into elements of work. This has revealed the proportion of time spent in non-productive handling of materials, and has led to method changes which have raised productivity substantially.

More recent developments in work measurement, based upon finer scale time-study than is possible with a stopwatch, have achieved greater increases in productivity. This is because the very short sub-elements of work which can be time-evaluated by, for example, the Methods-Time Measurement System, provide information which enables a trained practitioner to effect method improvements. Moreover this system enables methods and time standards to be developed before a garment goes into production.

Such techniques will become widely used for guidance in the selection of work aids, and the setting of time standards.

Commercial implications:

Cost Work aids developed from work measurement and method study will provide the greatest source of increased productivity.
Quality Standards of quality will be more uniform as a result of improvements in methods.
Capacity This increase in productivity will expand the output potential of industry.

Sewing aids

The aim of work aids is to reduce the time and effort of handling materials to and from the workplace. The aim of sewing aids is to reduce the skill needed in assembly.

Existing equipment to de-skill jobs ranges from the simplest of machine attachments (for example, an edge-sewing guide) to complex and costly automation systems. In the next ten years the use of sewing aids in the industry will greatly increase.

Folders, guides, stitching jigs and machines with variable differential feeding mechanisms, all giving consistent results for less effort, will be more widely used.

Not all these devices referred to below are suitable for knitted fabric and development work would be desirable.

Profile stitching

Profile stitching and machines programmed with automatic sequences of operations will gradually become widespread. Examples of the more complex and expensive machines are:

The Adler Profile Stitchers with turrets for work positioning, one of which is loaded whilst the machine automatically operates on work held in another;

The Durkopp Small Parts Stitcher, where again the operator loads one template whilst the component in the other is being sewn;

Otoforma Stitchers, incorporating the Clarbro Stitching jig principle, which extends profile stitching to garment parts as large as a coat fore-part. The jig incorporated in the Otoforma Sewing Round Unit has a dial setting which inserts the required fullness automatically, and during the automatic stitching cycle the operator prepares the second fore-part in another jig.

Automatic sequence control

Another group of developments which will be used are those which govern a sequence of activities carried out automatically by the machine. For example at a starting signal:

the machine begins the automatic part of the sewing cycle with a pre-stitch.

a pre-determined length of sewing is done,

the sewing is finished with a back-tack,

the needle stops in the required position,

thread trimmers operate,

the presser foot rises to allow withdrawal of the fabric,

the part is removed and held by a stacking device.

All major machine manufacturers have developed sequences of this type, some powered pneumatically, others using photo-electric cells or air-sensing devices.

More recently, fluidic-systems have been applied to sequenced activities.

Automation

Availability of pneumatic and fluidic systems will enable automatic sequences to be designed for present machinery.

One limitation on the development of automated machinery has been the lack of flexibility in systems; flexibility is essential in some, notably fashion firms.

There are signs now, however, that the use of modular control cabinets, such as the Singer System 2000, may provide a machine which can be called 'automated'.

In this machine each function is controlled by a separate module cabinet, so a change in any function only requires a change in the module concerned.

It is claimed that with only a short period of training, an operator can man at least three machines, and that the quantity produced per machine exceeds what could be conventionally produced by 'several operators'. These are the lines along which it is expected that automation of clothing manufacturing processes will develop.

It is not expected, however, that this development will have a large-scale effect upon the industry in the next decade.

General

The trend will be towards a fuller utilisation of present sewing aids and closer attention to operator methods, to determine where the aids can best be used.

The most important factor governing many methods of construction is the design of the garment.

To gain the greatest benefits from sewing aids, designs will incorporate standard garment parts where these are not style features.

This aspect of designing for production will open the way to more applications for semi-automatic and fully automatic machinery.

Commercial implications:

Cost Increases in productivity arising from the application of sewing aids can keep costs in check.

Quality Standards of quality will be improved as operators' skills are replaced by mechanical devices.

Output Output potential will be increased.

Non-sewing construction methods

The most important of these are the use of fusible materials and the welding of seams.

These lead to de-skilling of operations and considerable increases in the rate of output.

Fusibles

Fusible interlinings are now replacing the traditional canvas used in outerwear. They enable consistent reproduction of design features at less cost than sewing, and are particularly advantageous with lightweight or unstable fabrics.

Increased output has been achieved by the use of fusibles in women's jersey dresses and suits. Similar results are expected from general application to men's tailored outerwear. It is particularly relevant to the success of the developments in making men's suits from Crimplene and other knitted fabrics, where the cover factor is low and the possibility of bagginess presents a problem.

Companies supplying interlinings to the industry are carrying out intensive research and testing. To date, their research has been on fusible interlinings for use with pressing equipment capable of achieving correct fusing temperatures and pressures.

Present research is directed towards the production of fusibles where time, temperature and pressure are not as critical as at present.

This indicates for the future a wider range of uses of fusibles than is possible with the current need to use expensive, special purpose equipment.

Welding

Welding of seams and other parts of garments has received great publicity.

Future uses of these techniques will be in the construction of short-seamed garment parts, the welding on of patch pockets, welding buttonholes and buttons, cuffs and the attachment of labels and motifs. Thermoplastic fabric is required for welding, and up to now the characteristics required of the fabric have presented a problem. The fabric must have a wide temperature range between softening and melting points.

Another limiting factor is that the shape of the seam dictates the shape of the electrode in which the weld is made. The number of electrodes which would be necessary for operations affected by style changes, therefore, restricts the use of welding.

Welding will have considerable effects upon reducing construction costs, but it is not a replacement for the sewing machine.

Commercial implications:

Cost Costs will be reduced.

Quality The quality of garments will in some cases be improved. Welding of seams in some garments is a desirable improvement, eg sailing wear.
Capacity These techniques will increase the output potential of the industry.

Fusing, pressing and finishing of knitted garments

Fusing

Increasing use of fusible interlinings has made new demands on pressing equipment. To ensure that bonding takes place evenly, without bubbling, heat and pressure must be evenly distributed. Also, because dwell times are critical in the parts of the cycle during which bonding and setting take place, automatic control of these is desirable. Suitable fusing presses are already available.

Benefits are twofold. Firstly, the amount of stitching necessary for the shaping and reinforcement of the garment is reduced. Secondly, the use of automatic control of the cycle de-skills the operation considerably.

The following are examples of recent fusing pressures:
Reliant have a twin tray fusing press for outerwear which enables the operator to load one tray whilst the other is locked in the press for the pre-set and automatically controlled fusing cycle. The Tru-Fuse Major Automatic Press employs compressed air to move the tray into and out of the press. Braithwaite's 'Grimsley' press is designed for high production rates in fusing. It can be fitted with automatic vacuum at the unloading end of the conveyor to ensure controlled cooling and, therefore, setting of the fused parts. One of Kannegiesser's models is fed by a belt conveyor system carrying the parts for fusing through the loading, pressing, cooling and unloading positions. This company has studied the operation to obtain maximum utilisation of the conveyor space; the use of a miniature lay planning system would achieve higher machine utilisation when a large number of parts in a batch are fused simultaneously. All the modern fusing presses are equipped with automatic time controls and designed for the even distribution of heat and pressure over the pressing area.

Pressing

Productivity in sewing machines for knitted fabrics will rise by twenty-five to thirty per cent in the course of the next five years; a similar increase in the pressing section will be necessary, and will come from installing equipment designed for easier operating, with much of the operator's skills 'programmed', into the machine.

An example of a machine which increases productivity and reduces skill is Braithwaite's Model 2G-J1.

Kannegiesser, Certus and New Yorker presses are available with a variety of features designed to reduce the skill required by the operator in obtaining results which are consistently satisfactory.

The problem of automatic control of pressing is aggravated by the variety of fabrics, with differences in weights and finishes needing different treatments: but suitable automatic controls are being incorporated into presses.

The Hoffman Paris programme selector is one such system; a press button selects the appropriate automatic control for the fabric in process.

This type of equipment will be used more in the industry in the next ten years.

'Minimum-care' finishes

Durable finishing techniques have been in use for a number of years. More recently the technique known as 'post-cure' has been applied to shirts, dresses and outerwear at an increasing rate. The post-cure finishing method involves the impregnation of the cloth with resin, and the shape-retention qualities of the fabric are not activated until the garment is fully made up.

These finishes now require presses which attain higher than normal temperatures and garment curing ovens in which the pressed garments are set in their final shape.

Present curing ovens are expensive both to run and in space.

Developments are therefore expected in pressing equipment which is capable of the final setting of the garments without need for subsequent oven-curing.

One such model for durable pressed shirts is the Appar-All body press. This can produce 180 shirts per operator hour, finally pressed and ready for packaging.

We believe that the reason for the relatively slow acceptance of permanent press processes by the manufacturers of the UK is that they are awaiting the development of processes which do not require expensive curing oven installations.

Commercial implications:

Cost Increased productivity will be achieved.
Quality The growing need for easy-care finishes will necessitate use of this equipment.
Capacity Output potential will be increased.

6 DYEING AND FINISHING

Automation in dyeing and finishing

Although automation is most easily applied to continuous processes, many batch processes are controlled automatically, and techniques are being developed to improve batch process efficiency by automatic control. Automation can range from simple labour-saving devices to complex computer controlled systems designed to optimise a whole factory's output. There are three principal reasons for the application of automation to a process:

Potential labour saving

This may arise from the elimination of heavy work by materials handling equipment, or improved labour utilisation from better control of a process by the use of advanced instrumentation and computers.

Increased throughput

Better organisation and matching of unit operations induced by automatic control will increase throughput. Associated with this is better plant utilisation resulting from production planning and the operation of machines nearer to their safety limits.

Improved quality

Tighter control of plant operating conditions to compensate for changes in the process variables will lead to better quality finished production. The adjustments required to compensate for changes in the operating conditions require improved methods of measurement. The difficulty of improving the accuracy of measurement techniques is one of the factors which may restrict the application of more advanced control techniques.

The three factors enumerated above are all relevant to current developments being undertaken in the dyeing and finishing of both knitted and woven fabrics.

Automation in the dyehouse

Many operations in the dyehouse are carried out in batches and a considerable increase in productivity is possible by using automatic control. It has been estimated that by applying automatic sequence control, productivity can be improved by over 30 per cent in the operation of five high temperature beam dyeing machines, because interference time is reduced or eliminated.

Programmed temperature controllers

These are relatively inexpensive at about £500 each. The starting temperature, rate of temperature rise, maximum temperature and holding time are set up mechanically in the controller. At each stage in the process, a signal is given to the operator, who then takes whatever action is required at the pre-set sequence.

Simple sequence controllers

These may be operated by punch cards, or by circular charts with blocked out programmes sensed by styli linked to a coding system which operates valves in the required sequence. They are more suitable for the control of fixed sequences and time cycles on simple types of dyeing vessels. For high pressure machines and more complex systems, programming can become complicated.

Solid state sequence controllers

A more sophisticated controller makes use of punched card and transistors to determine process sequence and temperature control. The Celon controller, developed by Courtaulds, is programmed from a library of sub-routines, and has been successfully applied commercially in a Courtaulds dyehouse.

Colour measurement and monitoring

The application of full automation to continuous dyeing processes is still very much in the future. An important problem associated with automation in the dyehouse is that of the establishment and acceptance of numerically defined colour tolerance limits. This is dependent not only on agreement between supplier and consumer but also on the availability of instruments that can measure colour differences with sufficient accuracy. These instruments are being increasingly used for determining and setting colour tolerances. For the future, general purpose or special purpose computers can be used to formulate and correct colour recipes, whilst continuous scanning devices will be connected to computers to provide a closed loop self-correcting shade matching system for continuous dyeing. Measurements will be made in terms of tri-stimulus values, and variations outside the set tolerances will be corrected automatically by feeding in additional dyestuffs as required. It will be necessary to be able to isolate and distinguish between the effects of random variation in process variables (such as steaming, drying, oxidising and soaping, which are common causes of colour variations) and shade variation caused by changes in dye concentration.

At present, colour monitoring can be used to:

Provide an early warning that the colour is drifting so that the dyer can check that all the controls are correctly adjusted and operating satisfactorily.

Ensure that final dyed material can be sorted out for delivery in batches of a uniform colour.

Provide the dyer with an indication of a persistent colour drift necessitating a correction to the recipe.

Application of automatic controls

The successful application of automatic controls to the dyeing of knitted fabric is illustrated by the new Nyla Raywarp plant at Long Eaton. The computer controlled process can dye warp knit fabric continuously, and has resulted in increased labour productivity and the highest degree of quality and consistency in the finished fabric.

Commercial implications:

Quality Finished fabric quality will be improved by the reduction of the range of shade variations from the same dye batches.
Output The output potential will be increased because of increased machine utilisation.
Costs Economies in dyestuffs consumption and increased labour productivity are likely to reduce production costs. This may or may not affect the final price of the product.

Screen printing on knitted fabrics

In order to satisfy the demand for knitted fabrics, the screen printing industry has found it necessary to adapt its equipment to cater for the needs of the relatively less stable fabric. Hitherto, the care necessary in the handling of knitted fabrics has been achieved by limiting output to the capacity of the manual process. The growth in demand for knitted fabrics not only outpaced the manual capacity, but confronted the industry with problems previously avoided by using the manual process. Extra volume could be produced by automatic screen printing, provided that a method of handling could be devised which would feed the fabric into the machine without tension, so that stretch and consequent loss of width would be avoided.

For example Meccanotessile of Italy claim to have solved this problem with their screen printing machine Model A1. A special feed unit which avoids tension is used, and the fabric is fixed to the printing blanket by means of a pressure roller. Adhesion of the fabric to the printing blanket is effected by a double glueing system so that the printed fabric may be detached without an excessive pull. A drying cabinet has been specially designed for knitted fabrics. In this the speed of the non-stop movement conveying blanket is adjusted automatically by photo-electric cells. The screen printing machine and the dryer are suitable for both woven and knitted fabrics, and thus provide a high degree of versatility.

The production rates of short run prints processed on printing tables can be improved by the use of the automatic carriage.

High pressure dyeing

The use of high pressure dyeing equipment for processing polyesters and polyamides will increase in the next ten years. At present, carrier dyes have been generally used for dyeing both these fibres, particularly in the Crimplene sector of the polyesters. Many carriers are smelly, costly to remove, and interfere with fastness to light. A more general application of high pressure dyeing will eliminate these disadvantages, and by the use of jets will reduce the dyeing time and promote a more efficient circulation of the dye liquor. For nylon fabrics, high pressure dyeing will often give a better covering of the barre effects.

High pressure equipment is expensive; therefore it is important to ensure that the machinery is utilised to its fullest extent. Future development work will ensure that only that part of the operation which requires high working pressures will occupy the equipment at the critical times. This will be accomplished by analysing and segregating the operations not needing the high pressure treatment and planning the maximum utilisation of the high pressure equipment.

Solvent processing

Solvent processes have already been used for batch scouring of knitted piece goods and the scouring and milling of knitted garments. Benzyl alcohol and water mixtures have been used for the past ten years for dyeing heavy woollen overall fabrics, but this technique has not spread into other fields. Nevertheless, the use of solvents for dyeing and finishing various forms of textile goods is under continual review and development. Internal and external pressures are likely to have a bearing on the speedy implementation of any advances made in these processing techniques.

From within the industry, the trend is towards automation and the use of the computer to simplify complicated operating sequences. Solvent processing, particularly scouring, could provide the ideal basis for continuous dyeing of weft knitted goods to give a complete continuous sequence of scour, dye and finish. Two of the principal external pressures for the use of solvents relate to the demand for easy-care properties in knitted goods, and to the supply and cost of water. The use of solvents for the application of easy-care properties to knitted garments is achieved by the use of dry cleaning machines hitherto used for scouring and milling.

Dyestuffs

The future trend will be towards dyestuffs having higher fastness properties with ease of application.

Fabric scouring

Continuous process fabric scouring will be provided by Vibrotex type equipment which will replace the present dolly roller. By vibrating the dirt in detergent, rinsing by sprays, and drying by vacuum slot, this process considerably reduces the handling element in the operation.

7 THE USE OF COMPUTERS IN THE INDUSTRY

HATRA and IBM have developed programmes for preparing design specifications for fully fashioned garments. There are signs that every country with a major garment industry is beginning to realise the benefits of the speed with which computers can provide answers to problems both complex and voluminous.

An example of complexity is the determination of optimum cutting programmes, whilst a problem of volume is the processing of the mass of statistics on pay, performance of operators, control of time losses in production departments, analysis of sales, stock positions and so on.

A recent development in America is the use of linear programming to determine the lowest cost cutting programme consistent with cloth availability, machine capacity and delivery dates. The company involved reports a 'very substantial' reduction in material and labour costs in their cutting departments. They have also noted that the information produced by the computer is giving them greater control throughout the company.

Another American company, manufacturing swimwear, has developed a computerised method of grading and cutting patterns, providing information for marking the patterns, cutting instructions and garment identification.

This method is similar to one available in the UK from a British firm whose system also includes a service which prepares and cuts miniature lays and calculates the total pattern area.

The Co-operative Wholesale Society's group of clothing factories have their own computer bureau which is being used in accounting and is to develop into Sales Analysis, Stock Control and cutting programmes.

The CWS's computer is not fully utilised by its own work, and time is rented to other users. This is a way into computer use for those companies for which the purchase or sole leasing of a computer is too costly.

Silhouette is another British company with its own computer, which tends to apply it to Sales and Stock Accounting and eventually Production Control.

The Soviet Union has other examples of the application of the computer to garment manufacturing, such as the determination of optimum cloth utilisation.

In the UK, of several Computer Centres available, one has a section devoted to computer programmes for the garment industry. They offer a twenty-four hour service and report that, while the number of clothing firms using the service is small, they are dealing with a large number of enquiries. The service offers a complete sales analysis giving the sales and order position, a cloth usage analysis, a gross profit and customers' ordering pattern analyses.

Currently, the Bureau is working on a computerised pattern grading service and cutting planning.

Computers offer maximum cost reduction in the field of cloth utilisation. Administrative applications would certainly raise the efficiency of a company and provide a sounder basis for making decisions, but would not show as clearly on the Profit and Loss Account as exercises aimed at optimum cloth usage and cutting usage.

8 COMPARISON OF BRITISH TECHNOLOGICAL ADVANCES WITH OVERSEAS COUNTRIES

The major firms supplying equipment and machinery for knitting and making-up operate on an international scale.

Thus garment manufacturers in the Western World, at least, share the same opportunities of obtaining advanced machinery and equipment, and of participating in programmes of future development with all the major machine and equipment manufacturers.

While the UK holds the lead in some sectors of knitting machine manufacture, Germany and Switzerland are the leaders in others.

On the making-up side, Germany and Sweden are well in advance of the UK in the examination and preparation of materials prior to cutting, and generally lead as regards the planning of lays to improve cloth utilisation.

However, in no other areas do there appear to be significant differences between the stage of development achieved in Britain as opposed to Continental and American companies, though it is very difficult to make comparisons of a general nature because of the great diversity of the industry.

The industry in the UK has a longer 'tail' of small companies which either cater for a narrow market with special styles and sizes, or who work with very low overheads and little hope of expansion. The future developments in the industry seem, on balance, to favour the continued, healthy existence of the larger company, apart from those providing high fashion, or other special service.

It is essential that management should be capable of appreciating the benefits of available equipment; this entails an ability to evaluate the savings involved, often on a very fine scale.

The speed with which the Swedish manufacturers appreciated and installed sewing machines with top and bottom thread trimmers, resulted from the far wider spread of training in a predetermined, motion-time system.

The marked differences between the American clothing industry and the British lie in administrative sophistication and the working speed of the average operator (which is some 12 per cent greater in America) rather than in the general level of technological development.

A difference in throughput rates in light clothing could also be influenced by the lower durability of American garments.

One field in which the UK garment industry is certainly ahead of that of America is the application of fusibles to garment construction and the use of high frequency welding for outerwear where 100 per cent synthetic fibres are involved.

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NATIONAL ECONOMIC DEVELOPMENT OFFICE

Hosiery and Knitwear in the 1970s

A study of the industry's future market prospects

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A report prepared by Associated Industrial
Consultants Limited for the Marketing
Action Group of the Economic Development
Committee for the Hosiery and Knitwear Industry

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The Economic Development Committees are composed of representatives of the three parties involved in industrial and economic development—management, trade unions and government. Their secretariat is provided by the National Economic Development Office, which is an independent, publicly financed body. This report has been prepared by Associated Industrial Consultants Limited, for the Hosiery and Knitwear EDC, *under the guidance of the Marketing Action Group. For administrative convenience the booklet is printed and published through* HMSO.

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Hosiery and Knitwear EDC

This study was initiated by and took place under the guidance of the Marketing Action Group.

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**Changes (from February 1970)*	
J H McEnery	replaced C N Jupp
D G Barker	replaced P S Mould

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Foreword

This is the report of a study initiated and steered by the Marketing Action Group of the Hosiery and Knitwear Economic Development Committee. The report by Associated Industrial Consultants Ltd, contains a mass of information, the acquiring of which is beyond the resources of the majority of firms in the industry. No forward looking study of this nature can provide definitive answers to specific questions and individual members of the EDC do not necessarily agree with all the conclusions of the consultants. Moreover, there are areas which merit further study by individual manufacturers, by trade associations and by the EDC. Nevertheless, the report does provide a most comprehensive and up-to-date picture of the market for hosiery and knitwear, both as it is today, and as it is likely to develop over the next decade.

I do not accept the argument that forecasts should not be attempted because they can never be completely accurate, especially in an industry affected by fashion changes. We are all closely involved in the day-to-day problems of our companies and it is difficult for busy executives to get away from these and look at the business from outside and into the future. Any considered and responsible forecast is better than no forecast at all because it causes us to think ahead, to argue and to act. Because our industry is subject to fashion changes, forecasting is more difficult but also more necessary. Fortunately, the long term economic and social trends can be identified with sufficient accuracy to indicate the main prospects, opportunities and threats for different sectors of the industry.

I have said before that the hosiery and knitwear industry does not sell hosiery and knitwear but comfort and appearance for people. Today, top management in the industry is spending more time in deciding what its business really should be, and in ascertaining the true needs and motivation of users, purchasers and retailers, and how they can best be influenced and served. It is attempting more and more to anticipate trends, to innovate, and to gear its operations to meet the needs of the market and to secure the maximum share of that market that it is profitable to obtain. If this report makes some small contribution to this thinking it will have served its purpose.

On behalf of the EDC I would like to express our gratitude to the Chairman and members of the Marketing Action Group, to the staff of AIC and of NEDO, and to the many associations, firms and individuals that have contributed information and opinions. I hope that you will agree that their efforts have been worthwhile.

L M Spalton,
Chairman,
Economic Development Committee for the
Hosiery and Knitwear Industry

Introduction for top management

The prospects for the hosiery and knitwear industry are essentially the prospects for the 130,000 people whose working lives are invested in the industry. Their destinies will be largely affected by the quality of the decisions taken by the 1,000 or so chief executives and their associated top-managements who run this industry—and it is to them that this introduction is mainly addressed. The rest of the country, of course, also has an interest in the industry's performance, both as customers and as citizens of a country whose total economic well being depends on wise management and husbandry of its resources in all individual sectors of industrial activity.

These introductory remarks are intended to encourage a re-examination of the business, and particularly marketing strategies of hosiery and knitwear companies in the light of the opportunities (and threats) outlined in this report.

The Economic Development Committee for the industry sponsored a survey of future market prospects because it regards it as a priority responsibility to stimulate well informed discussion about the future shape and performance of the industry. There seemed to be a lack of well codified information about markets, technological developments and other important factors. The decision was therefore taken to attempt to supply some of the missing data.

There is, of course, no magic formula available to the EDC for seeing into the future, if only because the future will itself largely be shaped by the decisions of the industry's managers. The report must therefore be read as the work of experienced, independent and professional management consultants, sponsored by the Economic Development Committee but by no means representing a definitive EDC view. It is a *basis* for further enquiry and discussion and will no doubt be differently interpreted by the people to whom it is addressed. In some instances there is even room for questioning some of the data and forecasts, since judgement has often had to be applied to the interpretation of confused and inadequate source material. Our view is, however, that most managers will understand the need for caution in interpretation, but will still welcome this first major attempt to supply them with an informed context for their thinking about the future.

The first piece of advice in this introduction is—read the report! The introduction is not intended as a substitute. Since we are realists we recognise that you may not feel able to read it immediately in its entirety and so you will find it conveniently sub-divided into seven monographs covering the main garment types and knitted fabric to enable you to pin-point your areas of prime interest.

The report talks to you about *markets* and *demand*, about *distribution*, about *industry organisation* and *structure*—and several other important matters.

In terms of markets and of demand, both at home and overseas, the report forecasts worthwhile growth. Total UK sales of hosiery and knitted garments are forecast to grow by about 7½ per cent per annum through 1973, and subsequently by about 5½ per cent per annum up to 1978, based on population and income growth and a continuation of the swing from woven to knitted fabric. If this is so, a priority question for management is that marketing strategy needs to be developed in your enterprise to guarantee *at least* this rate of growth, since to fall below the total forecast market growth rate means to lose market share—to fall back, in fact. What, for instance, at such a rate of growth would be the implications for your production capacity by 1973 and 1978, and the investment needed to increase it? These, and other basic questions concerning strategy, follow directly from what you will read in the report about market growth, although the relative growth rates vary of course for different garment groups.

A part of the answer to that question about your required strategy to match—at least—the total growth of the UK market seems likely to stem from another crucial part of the report's coverage of markets and demand. Please read very carefully the sections on exports and import growth. Between 1968 and 1978 considerable import growth is forecast in individual garment sections; in value terms at constant prices, 170 per cent for men's and boys' knitwear, 235 per cent for men's and boys' underwear, 300 per cent for women's and girls' lingerie and nightwear and so on.

It seems unlikely, in face of such a forecast threat, that your enterprise can afford to leave out of its plans for this period, specific programmes both for the expansion of or entry into overseas markets to compensate for any loss of domestic market share to imports; and at the same time some attempt to frustrate the import forecast by more careful examination of the factors enabling foreign competitors to take increasing shares of the UK market. In some sectors the evidence points to a worsening of the trade deficit. We suggest that the managers of firms in such sections will wish to examine the implications of this evidence for their own companies and react by aggressive marketing action—in other garment types of higher potential and in export markets where profitable.

The report has an important appendix to help in pinpointing worthwhile overseas target markets for attack. It also provides some sobering comment on recent export performance by the industry amongst its fourteen main international rivals. We have, of course, some dramatic success stories. The *total* picture, however, ranks us sixth in the international league table (a poor sixth to Italy, Hong Kong, France, Japan and West Germany) in terms of value of exports in 1967 and *thirteenth* if we rank according to exports per employee.

We would strongly recommend that a specific strategy for export development should be a priority commitment for each management reading this report. Such recommended action—to boost your overseas business development—cannot be regarded any longer as an appeal to fulfil a patriotic duty; after this report, it is the soundest available strategy for profitable growth through the seventies!

The issues arising for top management from the distribution, industry structure and technological sections of the report are inseparable in terms of your business policies and strategies.

In the first place, the squeeze in which the hosiery and knitwear industry finds itself, between the highly rationalised major fibre and textile supply groups on the one hand and the powerful multiple retail purchasers on the other, seems likely to continue. We are not necessarily in agreement with the consultants' own conclusion (see Chapter 5) that there is little the firm can do anyway about an influence which could be primarily to the industry's good.

It is expected, however, that during the period covered by the report, more forward integration of supply companies into some sections of the hosiery and knitwear industry will take place because of the pressures on the latter to improve their resources of capital, managerial capacity, and marketing techniques and skills.

All managements in the industry may therefore find the occasion of this report a good point at which to reappraise these wider aspects of their corporate policy. Several key marketing questions are raised by the report in this context. The concentration of consumer spending through fewer retail buying points—expected to accelerate during the forecast period—is already associated with 'own-branding' policies by those outlets with which large sections of the hosiery and knitwear industry have already acquiesced. The benefits have been and are considerable. But there are risks, too, in the longer term perspectives encouraged by this report.

What happens if the key retail and other customers reappraise their own strategies? How far is a company at risk in sacrificing its 'mark' to supplier or customer? There are some signs that at least some key multiple retail customers, and a larger number of key independent retailers, are saying that they cannot get from the UK hosiery and knitwear industry either the product variety or design flexibility which they require. At the same time, we find signs that some external competitors who have previously based their own attack solely on price are preparing for futures in which they can also compete in quality and variety.

Chief executives in the industry will therefore no doubt, in interpreting the survey, wish to reconsider where they stand with regard to the question of 'branding' (in the sense of owning for their own enterprise some direct end-user loyalty) and of accepting the *prime* responsibility for product and design initiation. These would seem to be the 'commanding heights' of a strategy based on maintaining profitable independent growth during the seventies. The alternative, and in some instances more viable strategies, would be those based on lateral co-operation with other companies within the industry or some form of vertical or forward integration.

Many of these decisions will also be influenced by productivity and costs, since the price factor emerges from the report as a doubly important factor for future marketing. The consumer attitudes surveyed in the report indicate that market growth at the forecast level depends on prices being held at a strictly comparable level to those in other consumer goods fields or, in some cases, reduced. Similarly, price competitiveness is crucial to the forestalling of further import growth in the price-sensitive sections of the market.

Since labour costs are forecast to rise substantially, higher productivity based on improved technology in a particularly important area for top management in the make-up sector. In this respect, we are acutely aware that this report does not—nor was it intended to—deal fully with technology (partly covered however), investment, and research and development. Future collaborative work on these subjects is required, but the report supplies at least a better context for examining *within* individual companies necessary policies on all three.

The interrelationship between the market factor, investment policy and productivity emerges clearly from a close reading of Chapter 5. For example, of the 20 per cent to 30 per cent productivity increase for circular knit fabric during the forecast period, the report expects about one-third to result from increased shift working, one-third from better machine utilisation and one-third from machinery replacement. In the case of the new fully fashioned garment machines the

30 per cent to 35 per cent margin for improved productivity must result from new machinery since there is considered to be little scope for improvement from current installations. In the case of seamless stocking manufacture a major swing to available multi-feed machines could raise the productivity growth by as much as 50 per cent.

In all these and most other instances the industry's performance in costs and pricing hinges on an improved rate of investment in new machinery allied with efficient utilisation. The capacity to invest, itself rests largely on the capability of the enterprise to grow at a rate of sales volume (and profit) at least commensurate with the forecast movements of the total market outlined above. The report, therefore, again offers an important opportunity for top management to reappraise its policies within these three parameters—market growth, investment, and return on investment. We would hope that a growing number of such managers, as a result of this appraisal, might question whether acceptance of a high percentage of old machinery should not be replaced in the future with a determination to operate at a level of new investment in advanced machine capability sufficient to ensure productivity and costs at a level compatible with faster growth and an acceptable return on investment.

These, then, are some of the important issues raised by the report which we now offer for your attention. You will want to study the relevant sections of the report deeply and draw your own conclusions for action related to your specific company situation, resources and objectives. This is the process of corporate planning which enables a company to lay down corporate objectives in terms of growth, market share and required return on investment and then, through an audit of its own resources and capabilities and of external market environment within which it must operate, move towards clearer strategies to achieve its ends. The report is a first attempt to equip the industry with that picture of its likely future environment and, with all the reservations that we have put upon it, we believe it supplies a good beginning. Out of the resulting debate will come, we hope an aggressive commitment by the industry to harness and exploit the changing factors in the market place. Ultimately, markets are 'created' not found and we must expect creativity and innovation to be basic to an industry which exists to supply fashion and comfort to its customers.

N L Rigby
Chairman
Marketing Action Group

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Preface

The origin and purpose of the study

The Hosiery and Knitwear EDC commissioned Associated Industrial Consultants Ltd (AIC) to examine and report on the social and economic changes which they expect to take place during the next decade and to assess their significance for the industry and its markets. Our study does not aim to provide recommendations on policy to the industry; nor is it intended to be fully comprehensive.

The changes which we have studied are largely outside the control of the industry; the industry should now decide how it can make the best use of the opportunities and minimise the threats we have identified.

The method of study

The study was based on analysis of published information and statistics and on a series of discussions with informed sources on varying aspects both of the industry and of other industries, such as the fibre and textile industries, and of the retailing and wholesaling sectors whose activities impinge on the hosiery and knitwear industry.

We also reviewed likely changes in technology, both in the hosiery and knitwear industry and the textile and fibres industries, because of possible effects on cost and quality, and thus on demand. Our forecasts rest on assessments of technological changes, based on the experience of our clothing industry division and discussions with informed sources on the subject.

Acknowledgements

This study owes a great deal to the kind collaboration and assistance of many hosiery and knitwear, fibre and textile firms. We should particularly like to thank ICI Fibres Limited, and also Courtaulds Limited, for permission to use some very illuminating market data, without which we could not have covered as much ground in the limited time allotted.

Thanks to the assistance of the Board of Trade, we were able to obtain from British embassies an invaluable assessment of the reputation and prospects of British garments overseas.

The authority of the findings

The judgements and conclusions in this report are AIC's. We take full responsibility for them. We hope the hosiery and knitwear industry will find them useful.

Definitions and assumptions

Except for certain specified instances in Appendix 2, forecasts and future prices are in 1968 constant values throughout, and historical data are in current values. That means to say, our forecasts do *not* allow for future inflation.

All forecasts and estimates, unless otherwise indicated, have been made by AIC. Therefore, all tables without specified sources are based on AIC forecasts or estimates.

Forecasts for 1973 and 1978 must be liable to some variation caused by short-term fluctuations (see Chapter 2.1).

Export values are fob and import values *cif*, except where otherwise specified.

Recent German revaluation has not been allowed for.

Assumptions about international trade by parcel post are given in full in Appendix 3. Except where otherwise specified, forecasts of UK exports include exports by all methods of despatch, but HM Customs and Excise historical exports data exclude garments exported by post in parcels valued at less than £50.

UK entry into the common market is not assumed: the subject is discussed on page 24. *Trade balance* see Appendix 3 section 4.

In our discussions of garment groups (notably in Chapters 6–12) we have used the following definitions:

Knitwear:	sweaters, jumpers, cardigans, twin-sets and similar.
'Hawick' or luxury knitwear:	see p 54.

Hose:	women's full length stockings, tights and panti-hose and all other socks and stockings.
Women's knitted outerwear:	knitted dresses, suits, slacks, separates, skirts, jackets, sportswear and swimwear.
Men's and boys' knitted outerwear:	knitted suits, jackets, trousers, sportswear, swimwear, waistcoats, ties and scarves.
Women's and girls' knitted innerwear:	knitted lingerie and nightwear and knitted fabrics for foundation garments (lingerie=pants, briefs, knickers, slips. Foundation garments=brassieres and corsets).
Men's and boys' knitted innerwear:	knitted underwear and nightwear.
Other:	hats, gloves, piece goods and other items not elsewhere specified.

In certain parts of the report, where we are discussing data classified by a particular organisation, it has not always been possible to apply our own definitions of garments. For instance, much of the data in Chapter 2 is based on the Standard International Trade Classification (SITC) 841.4, used by the Organisation for Economic Co-operation and Development (OECD). Similarly, Appendix 2 makes use of data classified in accordance with the Family Expenditure Survey.

Following the usual delimitation of the hosiery and knitwear industry we have attempted, for the most part, to exclude warp knitted fabrics and garments from our forecasts. However, for reasons referred to in Chapters 8–12, it has not always been possible to separate clearly warp and weft knitting. Nor, indeed, do we consider that it would always be desirable to do so, since warp and weft knitters are often competing for the same markets.

$	US dollar
m	million. Except where shown otherwise, figures have been rounded to the nearest million.

Unless shown otherwise, percentage figures have been rounded to the nearest 0 per cent.

Multiple (*store*)	a shop belonging to a company with 10 or more branches, selling a limited range of goods.
Variety chain	as above, but selling a wider range of goods.

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